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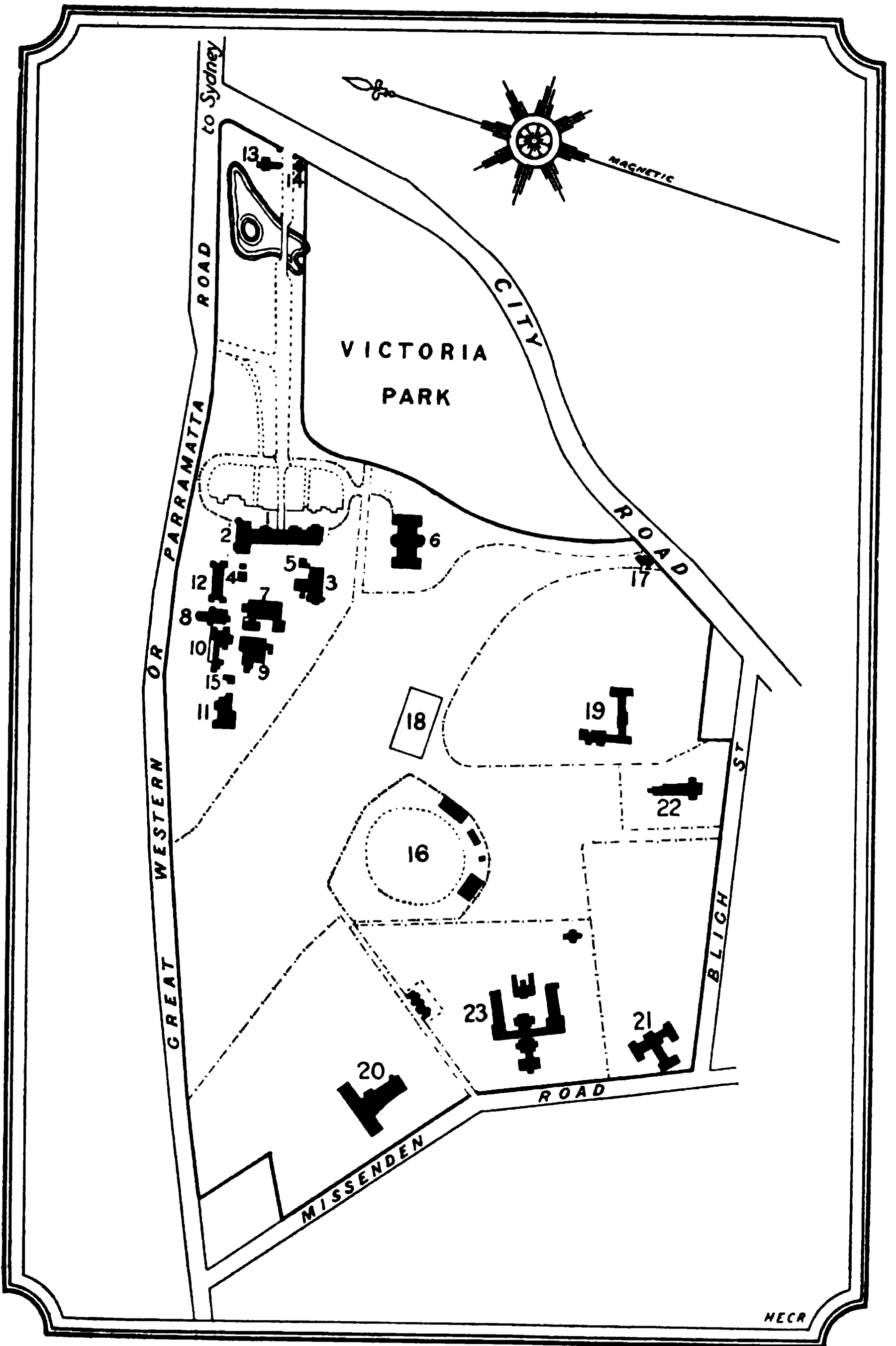
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# PREFACE.

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THE UNIVERSITY OF SYDNEY was incorporated by an Act of the Colonial Legislature, which received the Royal Assent on the 1st of October, 1850. The objects set forth in the preamble are—"The advancement of religion and morality and the promotion of useful knowledge." By this Act it is empowered to confer, after examination, Degrees in Arts, Law and Medicine, and is endowed with an annual income of £5000. By the University and University Colleges Amendment Act, 1902, the statutory annual endowment was increased to £10,000.

By the University Extension Act of 1884 the Senate is empowered to give instruction, and to grant such Degrees and Certificates in the nature of Degrees, as it shall think fit, in all branches of knowledge, except Theology and Divinity. The same Act admits women to all University privileges equally with men.

The various Acts of Parliament relating to the University and Colleges have been superseded by the University and University Colleges Act, 1900.

By a Royal Charter issued 7th February, 1858, the same rank, style, and precedence are granted to Graduates of the University of Sydney as are enjoyed by Graduates of Universities within the United Kingdom. The University of Sydney is also declared in the Amended Charter granted to the University of London to be one of the institutions in connection with that University from which certificates of having pursued a due course of instruction may be received with a view to admission to Degrees.

The government of the University is vested in a Senate, consisting of sixteen elective Fellows, and not fewer than three nor more than six "*ex-officio*" members, being professors of the University, in such branches of learning as the Senate may from time to time select. Under this power, the Professors of Modern Literature, Chemistry, Physiology, and Law are constituted "*ex-officio*" members of the Senate. A Chancellor and Vice-Chancellor are elected by the Senate from their own body.

Vacancies in the Senate are filled by means of a convocation of electors, consisting of the Fellows of the Senate for the time being, Professors, Public Teachers and Examiners in the Schools of the University, Principals of Incorporated Colleges within the University, Superior Officers declared to be such by By-law, Masters and Doctors in any Faculty, and Bachelors of three years' standing.

There are four Faculties in the University, viz., Arts, Law, Medicine and Science.

In the Faculty of Arts two Degrees are given—namely, Bachelor of Arts and Master of Arts. The curriculum of study for the Degree of B.A. extends over a period of three years, during which students are required to attend lectures and pass examinations. The subjects of study are the English, Latin, Greek, French and German Languages, Ancient and Modern History, Mental Philosophy and Logic, Mathematics, Chemistry, Physics, Geology and Palæontology, Biology, Physiology, &c.

In the Faculty of Law the Degrees of LL.B. and LL.D. are given. The curriculum of study for the Degree of LL.B. extends over five years. The Degree of Bachelor of Law is recognised under certain conditions by the Board for the admission of Barristers in New South Wales as a qualification for admission to the Bar.

In the Faculty of Medicine three Degrees are granted, viz., Bachelor of Medicine, Doctor of Medicine, and Master of Surgery. The course of study for the Degrees of M.B. and Ch.M. extends over a period of five years.

The colony of New South Wales has been declared to be one of the British possessions to which the Imperial Medical Act of 1836 applies, and the Degrees in Medicine and Surgery granted by the University of Sydney are registered upon the Colonial List of the British Medical Register, under section 13 of that Act.

The University of Sydney is recognised as one of the Institutions from which the University of London is authorised to receive certificates for Degrees in Medicine. The University of Edinburgh accepts certificates of attendance on Medical Classes in this University to the extent of three years of professional study, and the Royal College of Surgeons extends a similar

recognition to attendance on the classes of the whole course, in the case of Graduates in Medicine who present themselves for examination for the Diploma of Member of the College.

In the Faculty of Science the Degrees of Bachelor of Science and Doctor of Science are given, and Degrees are also given in the several branches of Engineering, viz., Civil Engineering, Mechanical and Electrical Engineering, and Mining and Metallurgy. The course for the Degree of B.Sc. extends over a period of three years, during which the subjects of study are Mathematics, Chemistry (theoretical and practical), Physics (theoretical and practical), Mineralogy, Geology and Palæontology, Biology, etc. The curriculum in Civil Engineering covers three years, and in the other two departments four years.

In the School of Dentistry the curriculum extends over a period of four years, leading to the Degree of Bachelor of Dental Surgery.

The Universities of Oxford and Cambridge extend certain privileges to students who have completed two years' study in the University of Sydney and who desire to compete in the Examinations for Honours. Graduates of the University of Sydney who comply with certain requirements may be admitted as "advanced students" in the University of Cambridge. "Advanced students" may, under special conditions, proceed to the Degree of Bachelor of Arts or Bachelor of Law in that University, or obtain a certificate testifying to their proficiency in research.

Courses of Lectures in connection with the scheme for University Extension are delivered in Sydney and other places upon application. Each course consists of six or ten lectures, and concludes with an examination. Those persons who have attended any course regularly, and passed the concluding examination, receive University Certificates to that effect. The subjects of the lectures have hitherto been English Literature, Modern History, Ancient History, Political Economy, Logic and Mental Philosophy, Commercial Law, etc.

Senior and Junior Public Examinations are held annually in Sydney, and at other places where persons approved by the Senate can be found to superintend the examinations.

The lectures of the Professors are open to persons not members of the University, upon payment of the fee prescribed for each course.



Undergraduates and Graduates of other Universities are admitted *ad eundem statum* and *gradum* under certain regulations prescribed by the By-laws.

The object of the Sydney University is to supply the means of a liberal education to "all orders and denominations, without any distinction whatever."

An Act to provide for the establishment of Colleges in connection with different religious denominations was passed by the Legislature during the Session of 1854. Ample assistance was offered towards their endowment; and the maintenance of the fundamental principles of the University—*the association of students without respect of religious creeds, in the cultivation of secular knowledge*—is secured consistently with the most perfect independence of the College authorities within their own walls. Colleges in connection with the Church of England, the Roman Catholic and Presbyterian Churches, and a College for Women, have been established.

An account of the several Scholarships and other Prizes for proficiency which have been established out of the funds of the University, or have been founded by private benefactions, will be found in this Calendar.

The Senate has the privilege of nominating one candidate per annum to a Commission in the British Army, and to a Military Cadetship at Sandhurst.

Graduates in Arts of this University enjoy certain privileges granted by Act of Parliament, exempting them from all examinations other than an Examination in Law before admission as Barristers of the Supreme Court. The Rules of the Supreme Court also provide for a shortening of the period of Studentship-at-Law, in the case of Graduates in Arts, from three years to two, one of which may be concurrent with the final year of studentship at the University. Graduates who enter into articles of clerkship with attorneys and solicitors are only required to serve for three years instead of five.

At the yearly Examinations of 1882, women were first admitted to Matriculation in pursuance of a resolution passed to that effect by the Senate on the 1st of June, 1881. The University Extension Act of 1884 provides that "the benefits and advantages of the University, and the provisions of the Acts relating thereto, shall be deemed to extend in all respects to women equally with men."

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# SYDNEY UNIVERSITY CALENDAR.

1905-1906.

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# Sydney University Calendar.

1905.

MARCH XXXI.

1	W	
2	Th	
3	F	
4	S	
5	S	Quinquagesima Sunday.
6	M	Lent Term begins. Senate meets. University Examinations
7	Tu	[begin, viz., MATRICULATION PASS Examination, ENTRANCE Ex-
8	W	amination for LAW, MEDICINE and SCIENCE, DEFERRED ANNUAL
9	Th	PASS Examinations, ANNUAL LAW Examinations, HONOUR Ex-
10	F	aminations in the Faculty of Arts, and DEPARTMENT OF EN-
11	S	GINEERING. P. N. RUSSELL SCHOLARSHIP Examination. Latest
12	S	[date for receiving Competitive Prize Compositions.
13	M	First Sunday in Lent.
14	Tu	Examinations for Higher Degrees begin.
15	W	
16	Th	
17	F	
18	S	
19	S	Second Sunday in Lent.
20	M	Lectures begin.
21	Tu	
22	W	
23	Th	
24	F	[LATION Examination on April 3rd.
25	S	Latest date for receiving entries for the LAW MATRICU-
26	S	Third Sunday in Lent.
27	M	
28	Tu	
29	W	
30	Th	
31	F	

# Sydney University Calendar.

1905.

APRIL XXX.

1	S	
2	S	Fourth Sunday in Lent.
3	M	Senate meets. LAW MATRICULATION Examination.
4	Tu	
5	W	
6	Th	
7	F	
8	S	
9	S	Fifth Sunday in Lent.
10	M	
11	Tu	
12	W	
13	Th	
14	F	
15	S	
16	S	Palm Sunday.
17	M	
18	Tu	
19	W	
20	Th	
21	F	Good Friday.
22	S	
23	S	Easter Day.
24	M	
25	Tu	
26	W	
27	Th	
28	F	[PUBLIC Examinations on June 5th.
29	S	Last day for receiving applications for LOCAL JUNIOR
30	S	First Sunday after Easter.

# Sydney University Calendar.

1905.

MAY XXXI.

1	M	Senate meets.
2	Tu	
3	W	
4	Th	
5	F	
6	S	
7	S	Second Sunday after Easter.
8	M	
9	Tu	
10	W	
11	Th	
12	F	Last day for receiving entries for the JUNIOR PUBLIC
13	S	[Examinations on June 5th.
14	S	Third Sunday after Easter.
15	M	
16	Tu	
17	W	
18	Th	
19	F	
20	S	
21	S	Fourth Sunday after Easter.
22	M	
23	Tu	
24	W	
25	Th	
26	F	
27	S	LENT TERM ends.
28	S	Rogation Sunday.
29	M	
30	Tu	
31	W	

# Sydney University Calendar.

1905.

JUNE XXX.

1	Th	Ascension Day.
2	F	
3	S	
4	S	Sunday after Ascension Day.
5	M	Senate meets. JUNIOR PUBLIC Examination begins.
6	Tu	
7	W	
8	Th	
9	F	
10	S	
11	S	Whit Sunday.
12	M	TRINITY TERM begins.
13	Tu	
14	W	
15	Th	
16	F	
17	S	
18	S	Trinity Sunday.
19	M	
20	Tu	
21	W	
22	Th	
23	F	
24	S	
25	S	First Sunday after Trinity.
26	M	
27	Tu	
28	W	
29	Th	
30	F	



Sydney University Calendar.  
1905.  
JULY XXXI.

1	S	
2	S	Second Sunday after Trinity.
3	M	Senate meets.
4	Tu	
5	W	
6	Th	
7	F	
8	S	
9	S	Third Sunday after Trinity.
10	M	
11	Tu	
12	W	
13	Th	
14	F	
15	S	
16	S	Fourth Sunday after Trinity.
17	M	
18	Tu	
19	W	
20	Th	
21	F	
22	S	
23	S	Fifth Sunday after Trinity.
24	M	
25	Tu	
26	W	
27	Th	
28	F	
29	S	
30	S	Sixth Sunday after Trinity.
31	M	

Sydney University Calendar.

1905.

AUGUST XXXI.

1	Tu	
2	W	
3	Th	
4	F	
5	S	
6	S	Seventh Sunday after Trinity.
7	M	Public Holiday.
8	Tu	
9	W	
10	Th	
11	F	
12	S	
13	S	Eighth Sunday after Trinity.
14	M	Senate meets.
15	Tu	
16	W	
17	Th	
18	F	
19	S	TRINITY TERM ends.
20	S	Ninth Sunday after Trinity.
21	M	
22	Tu	
23	W	
24	Th	
25	F	
26	S	
27	S	Tenth Sunday after Trinity.
28	M	
29	Tu	
30	W	
31	Th	

# Sydney University Calendar.

1905.

SEPTEMBER XXX.

1	F	
2	S	
3	S	Eleventh Sunday after Trinity.
4	M	Senate meets.
5	Tu	
6	W	
7	Th	
8	F	
9	S	
10	S	Twelfth Sunday after Trinity.
11	M	
12	Tu	
13	W	
14	Th	
15	F	
16	S	
17	S	Thirteenth Sunday after Trinity.
18	M	
19	Tu	
20	W	
21	Th	
22	F	
23	S	
24	S	Fourteenth Sunday after Trinity.
25	M	MICHAELMAS TERM begins.
26	Tu	
27	W	
28	Th	
29	F	
30	S	Latest date for receiving applications for Local SENIOR [and MATRICULATION HONOUR and SCHOLARSHIP [Examinations on November 14th.

# Sydney University Calendar.

1905.

OCTOBER XXXI.

1	S	Fifteenth Sunday after Trinity.
2	M	Public Holiday.
3	Tu	
4	W	
5	Th	
6	F	
7	S	
8	S	Sixteenth Sunday after Trinity.
9	M	Senate meets.
10	Tu	
11	W	
12	Th	
13	F	
14	S	
15	S	Seventeenth Sunday after Trinity.
16	M	
17	Tu	
18	W	
19	Th	
20	F	[Examinations on November 14th.
21	S	[nation, and MATRICULATION HONOUR and SCHOLARSHIP
22	S	Latest date for receiving entries for the SENIOR PUBLIC Exami-
23	M	Eighteenth Sunday after Trinity.
24	Tu	
25	W	
26	Th	
27	F	[Examinations in December.
28	S	Latest date for receiving entries for the ANNUAL UNIVERSITY
29	S	Nineteenth Sunday after Trinity.
30	M	
31	Tu	

# Sydney University Calendar.

1905.

NOVEMBER XXX.

1	W	
2	Th	
3	F	[ MATRICULATION Examination on November 18th.
4	S	Last day for receiving applications for the Law
5	S	Twentieth Sunday after Trinity.
6	M	
7	Tu	
8	W	
9	Th	King's Birthday.
10	F	
11	S	
12	S	Twenty-first Sunday after Trinity.
13	M	
14	Tu	SENIOR PUBLIC Examination and MATRICULATION
15	W	[ HONOUR and SCHOLARSHIP Examinations begin.
16	Th	[ LAW MATRICULATION Examination.
17	F	
18	S	
19	S	Twenty-second Sunday after Trinity.
20	M	
21	Tu	
22	W	
23	Th	
24	F	
25	S	
26	S	Twenty-third Sunday after Trinity.
27	M	
28	Tu	
29	W	
30	Th	

# Sydney University Calendar.

1905.

DECEMBER XXXI.

1	F	
2	S	Lectures cease.
3	S	First Sunday in Advent.
4	M	Senate meets. ANNUAL Examinations begin.
5	Tu	
6	W	
7	Th	
8	F	
9	S	
10	S	Second Sunday in Advent.
11	M	
12	Tu	
13	W	
14	Th	
15	F	
16	S	MICHAELMAS TERM ends.
17	S	Third Sunday in Advent.
18	M	
19	Tu	
20	W	
21	Th	
22	F	
23	S	
24	S	Fourth Sunday in Advent.
25	M	Christmas Day.
26	Tu	
27	W	
28	Th	
29	F	
30	S	
31	S	First Sunday after Christmas.

# Sydney University Calendar.

1906.

JANUARY XXXI.

1	M	
2	Tu	
3	W	
4	Th	
5	F	
6	S	Epiphany.
7	S	First Sunday after Epiphany.
8	M	
9	Tu	
10	W	
11	Th	
12	F	
13	S	
14	S	Second Sunday after Epiphany.
15	M	
16	Tu	
17	W	
18	Th	
19	F	
20	S	
21	S	Third Sunday after Epiphany.
22	M	King's Accession, 1901.
23	Tu	
24	W	
25	Th	
26	F	Foundation of Australia, 1797.
27	S	
28	S	Fourth Sunday after Epiphany.
29	M	
30	Tu	
31	W	

# Sydney University Calendar.

1906.

FEBRUARY XXVIII.

1	Th	
2	F	
3	S	
4	S	Fifth Sunday after Epiphany.
5	M	Senate meets.
6	Tu	Last day for receiving entries for the University.
7	W	[Examinations in March.
8	Th	
9	F	
10	S	
11	S	Septuagesima Sunday.
12	M	
13	Tu	
14	W	
15	Th	
16	F	
17	S	
18	S	Sexagesima Sunday.
19	M	
20	Tu	Latest date for receiving applications for Post-
21	W	[Graduate Scholarships and also Bursaries.
22	Th	
23	F	
24	S	
25	S	Quinquagesima Sunday.
26	M	
27	Tu	
28	W	



# Sydney University Calendar.

1906.

MARCH XXXI.

1	Th	
2	F	
3	S	
4	S	First Sunday in Lent.
5	M	Lent Term begins. Senate meets. University Examinations
6	Tu	[begin, viz., MATRICULATION PASS Examination, ENTRANCE
7	W	[Examination for LAW, MEDICINE and SCIENCE, DEFERRED
8	Th	[ANNUAL PASS Examinations, Honour Examinations in the
9	F	[Faculty of Arts, and DEPARTMENT OF ENGINEERING. P. N.
10	S	[RUSSELL SCHOLARSHIP Examination. Latest date for receiving
11	S	[Competitive Prize Compositions.
12	M	Second Sunday in Lent.
13	Tu	Examinations for Higher Degrees begin.
14	W	
15	Th	
16	F	
17	S	
18	S	Third Sunday in Lent.
19	M	Lectures begin.
20	Tu	
21	W	
22	Th	
23	F	[LATION Examination on April 2nd.
24	S	Latest date for receiving entries for the LAW MATRICU-
25	S	Fourth Sunday in Lent.
26	M	
27	Tu	
28	W	
29	Th	
30	F	
31	S	

Sydney University Calendar.  
1906.  
APRIL XXX.

1	S	Fifth Sunday in Lent.
2	M	Senate meets. LAW MATRICULATION Examination.
3	Tu	
4	W	
5	Th	
6	F	
7	S	
8	S	Palm Sunday.
9	M	
10	Tu	
11	W	
12	Th	
13	F	Good Friday.
14	S	
15	S	Easter Day.
16	M	
17	Tu	
18	W	
19	Th	
20	F	
21	S	
22	S	First Sunday after Easter.
23	M	
24	Tu	
25	W	
26	Th	
27	F	[Examination on June 4th.
28	S	Last day for receiving applications for LOCAL JUNIOR
29	S	Second Sunday after Easter.
30	M	

# Sydney University Calendar.

.1906.

MAY XXXI.

1	Tu	
2	W	
3	Th	
4	F	
5	S	
6	S	Third Sunday after Easter.
7	M	Senate meets.
8	Tu	
9	W	
10	Th	
11	F	Last day for receiving entries for the JUNIOR PUBLIC
12	S	[Examination on June 4th.
13	S	Fourth Sunday after Easter.
14	M	
15	Tu	
16	W	
17	Th	
18	F	
19	S	
20	S	Rogation Sunday.
21	M	
22	Tu	
23	W	
24	Th	Ascension Day.
25	F	
26	S	LENT TERM ends.
27	S	Sunday after Ascension.
28	M	
29	Tu	
30	W	
31	T	

# Sydney University Calendar.

1906.

JUNE XXX.

1	F	
2	S	
3	S	Whit Sunday.
4	M	Senate meets. JUNIOR PUBLIC Examination begins.
5	Tu	
6	W	
7	Th	
8	F	
9	S	
10	S	Trinity Sunday.
11	M	TRINITY TERM begins.
12	Tu	
13	W	
14	Th	
15	F	
16	S	
17	S	First Sunday after Trinity.
18	M	
19	Tu	
20	W	
21	Th	
22	F	
23	S	
24	S	Second Sunday after Trinity.
25	M	
26	Tu	
27	W	
28	Th	
29	F	
30	S	

# Sydney University Calendar.

1906.

JULY XXXI.

1	S	Third Sunday after Trinity.
2	M	Senate meets.
3	Tu	
4	W	
5	Th	
6	F	
7	S	
8	S	Fourth Sunday after Trinity.
9	M	
10	Tu	
11	W	
12	Th	
13	F	
14	S	
15	S	Fifth Sunday after Trinity.
16	M	
17	Tu	
18	W	
19	Th	
20	F	
21	S	
22	S	Sixth Sunday after Trinity.
23	M	
24	Tu	
25	W	
26	Th	
27	F	
28	S	
29	S	Seventh Sunday after Trinity.
30	M	
31	Tu	

# Sydney University Calendar.

1906.

AUGUST XXXI.

1	W	
2	Th	
3	F	
4	S	
5	S	Eighth Sunday after Trinity.
6	M	Senate meets.
7	Tu	
8	W	
9	Th	
10	F	
11	S	
12	S	Ninth Sunday after Trinity.
13	M	
14	Tu	
15	W	
16	Th	
17	F	
18	S	TRINITY TERM ends.
19	S	Tenth Sunday after Trinity.
20	M	
21	Tu	
22	W	
23	Th	
24	F	
25	S	
26	S	Eleventh Sunday after Trinity.
27	M	
28	Tu	
29	W	
30	Th	
31	F	

# Sydney University Calendar.

1906.

SEPTEMBER XXX.

1	S	
2	S	Twelfth Sunday after Trinity.
3	M	Senate meets.
4	Tu	
5	W	
6	Th	
7	F	
8	S	
9	S	Thirteenth Sunday after Trinity.
10	M	
11	Tu	
12	W	
13	Th	
14	F	
15	S	
16	S	Fourteenth Sunday after Trinity.
17	M	
18	Tu	
19	W	
20	Th	
21	F	
22	S	
23	S	Fifteenth Sunday after Trinity.
24	M	MICHAELMAS TERM begins.
25	Tu	
26	W	
27	Th	[Examinations on November 12th.
28	F	[and MATRICULATION HONOUR and SCHOLARSHIP
29	S	Latest date for receiving applications for Local SENIOR
30	S	Sixteenth Sunday after Trinity.

# Sydney University Calendar.

1906.

OCTOBER XXXI.

1	M	Senate meets.
2	Tu	.
3	W	
4	Th	
5	F	
6	S	
7	S	Seventeenth Sunday after Trinity.
8	M	
9	Tu	
10	W	
11	Th	
12	F	
13	S	
14	S	Eighteenth Sunday after Trinity.
15	M	
16	Tu	
17	W	
18	Th	
19	F	[Examinations on November 12th.
20	S	[nation, and MATRICULATION HONOUR and SCHOLARSHIP
21	S	Latest date for receiving entries for the SENIOR PUBLIC Exami-
22	M	Nineteenth Sunday after Trinity.
23	Tu	
24	W	
25	Th	[Examinations in December.
26	F	Latest date for receiving entries for the ANNUAL UNIVERSITY
27	S	
28	S	Twentieth Sunday after Trinity.
29	M	
30	Tu	
31	W	



# Sydney University Calendar.

1906.

NOVEMBER XXX.

1	Th	
2	F	[MATRICULATION Examination on November 12th.
3	S	Last day for receiving applications for the LAW
4	S	Twenty-first Sunday after Trinity.
5	M.	Senate meets.
6	Tu	
7	W	
8	Th	
9	F	King's Birthday.
10	S	
11	S	Twenty-second Sunday after Trinity.
12	M	SENIOR PUBLIC Examination and MATRICULATION
13	Tu	[HONOUR and SCHOLARSHIP Examinations begin.
14	W	[LAW MATRICULATION Examination.
15	Th	
16	F	
17	S	
18	S	Twenty-third Sunday after Trinity.
19	M	
20	Tu	
21	W	
22	Th	
23	F	
24	S	
25	S	Twenty-fourth Sunday after Trinity.
26	M	
27	Tu	
28	W	
29	Th	
30	F	

# Sydney University Calendar.

1906.

DECEMBER XXXI.

1	S	Lectures cease.
2	S	First Sunday in Advent.
3	M	Senate meets. ANNUAL Examinations begin.
4	Tu	
5	W	
6	Th	
7	F	
8	S	
9	S	Second Sunday in Advent.
10	M	
11	Tu	
12	W	
13	Th	
14	F	
15	S	MICHAELMAS TERM ends.
16	S	Third Sunday in Advent.
17	M	
18	Tu	
19	W	
20	Th	
21	F	
22	S	
23	S	Fourth Sunday in Advent.
24	M	
25	Tu	Christmas Day.
26	W	
27	Th	
28	F	
29	S	
30	S	First Sunday after Christmas.
31	M	

# ROYAL CHARTER

## OF THE

# UNIVERSITY OF SYDNEY,

FEBRUARY 27TH, 1858.

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Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, to all to whom these presents shall come Greeting: Recites Act of Incorporation.  
WHEREAS under and by virtue of the provisions of an Act of the Governor and Legislative Council of our Colony of New South Wales, passed in the fourteenth year of our reign, No. 31, intituled "An Act to Incorporate and Endow the University of Sydney," and to which our Royal Assent was granted on the 9th day of December, One Thousand Eight Hundred and Fifty-one, a Senate, consisting of Sixteen Fellows, was incorporated and made a body politic with perpetual succession, under the name of the University of Sydney, with power to grant, after Examination, the several degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, Doctor of Laws, Bachelor of Medicine, and Doctor of Medicine, and to examine for Medical Degrees in the four Branches of Medicine, Surgery, Midwifery, and Pharmacy. AND whereas our trusty and well-beloved Sir William Thomas Denison, Knight Commander of our most honourable Order of the Bath, Lieutenant-Colonel in the Royal Engineers, our Captain-General and Governor-in-Chief

Petition of  
Senate.

Soliciting  
recognition  
of Degrees  
conferred by  
the Univer-  
sity.

in and over our said Colony, has transmitted to us the humble Petition of the Senate of the said University of Sydney under their common seal, dated the 9th of February One Thousand Eight Hundred and Fifty-seven, wherein is set forth a statement of the establishment of the said University, the appointment of learned Professors of the Faculty of Arts, and the provisions adopted and to be adopted in respect of the faculties of Laws and Medicine, and the course of Education and discipline for the Scholars, Undergraduates, and Graduates of the said University, and in which it is humbly submitted that the standard of acquirements which must be attained by Graduates in the University of Sydney is not below that prescribed by the most learned Universities of the United Kingdom, and the direction of the studies in the said University has been committed to Professors who have highly distinguished themselves in British Universities, that the rules under which the high standard in the University has been fixed cannot be altered without the approval of our representative in the Colony, and that there is invested in him the power of interference should the rules laid down be unduly relaxed in practice, and that, therefore, the Memorialists confidently hope that the Graduates of the University of Sydney will not be inferior in scholastic requirements to the majority of Graduates of British Universities, and that it is desirable to have the degrees of the University of Sydney generally recognised throughout our dominions; and it is also humbly submitted that although our Royal Assent to the Act of Legislature of New South Wales hereinbefore recited fully satisfies the principle of our law that the power of granting degrees should flow from the Crown, yet that as that assent was conveyed through an Act which has effect only in the territory of New South Wales, the *Memorialists believe that the degrees granted by the said University under the authority of the said Act, are not legally entitled to recognition beyond the limits of New South Wales*; and the Memorialists are in consequence most desirous to obtain a grant from us of Letters Patent requiring all our subjects to recognise the degrees given under the Act of the Local Legislature in the same manner as if the said University of Sydney had been an

University established within the United Kingdom under a Royal Charter or an Imperial enactment; and the Memorialists therefore hereby most humbly pray that we will be pleased to take the premises into our gracious consideration and grant to the University of Sydney Letters Patent effective of the object therein set forth. Now KNOW YE that we, taking the premises into consideration, and deeming it to be the duty of our Royal office, for the advancement of religion and morality and the promotion of useful knowledge, to hold forth to all classes and denominations of our faithful subjects, without any distinction whatsoever, throughout our dominions *encouragement for pursuing a regular and liberal course of education*, and considering that many persons do prosecute and complete their studies in the Colony of New South Wales, on whom it is just to confer such distinctions and rewards as may induce them to persevere in their laudable pursuits; do, by virtue of our Prerogative Royal and our especial Grace and certain knowledge and mere motion, by these presents of us, our heirs and successors, will, grant, and declare that the Degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, Doctor of Laws, Bachelor of Medicine, and Doctor of Medicine, already granted or conferred or hereafter to be granted or conferred by the Senate of the said University of Sydney shall be recognised as Academic distinctions and rewards of merit, *and be entitled to rank, precedence, and consideration* in our United Kingdom and in our Colonies and possessions throughout the world *as fully as if the said Degree had been granted by any University of our said United Kingdom*. And we further will and ordain that *any variation of the Constitution of the said University* which may at any time or from time to time be made by an Act of the said Governor and Legislature shall not, *so long as the same or a like standard of knowledge is in the opinion of the said Governor preserved as a necessary condition for obtaining the aforesaid degrees therein*, in any manner annul, abrogate, circumscribe, or diminish the privileges conferred on the said University by these our Royal Letters Patent, nor the ranks, rights, privileges, and consideration conferred by such degrees. And, lastly, we do hereby for us, our

Such  
recognition  
granted.

## ROYAL CHARTER.

heirs, and successors, grant and declare that these our Letters Patent or the enrolment or exemplification thereof shall be in and by all things valid and effectual in law according to the true intent and meaning of the same, and shall be construed and adjudged in the most favourable and beneficial sense to the best advantage of the said University, as well in all our courts as elsewhere, notwithstanding any non-recital, uncertainty, or imperfection in these our Letters Patent. In witness whereof we have caused these our Letters to be made Patent.

Witness ourself at Westminster, the Twenty-seventh day of February, in the Twenty-first year of our Reign.

By WARRANT under the Queen's sign manual.

C. ROMILLY.

# THE UNIVERSITY AND UNIVERSITY COLLEGES ACT, 1900.

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An Act to consolidate the Acts relating to the University of Sydney and Colleges within the University of Sydney.

[Assented to 22nd September, 1900.]

WHEREAS it is expedient for the better advancement of religion and morality and the promotion of useful knowledge, to hold forth to all classes and denominations of Her Majesty's subjects resident in New South Wales, without any distinction whatsoever, an encouragement for pursuing a regular and liberal course of education; and to ascertain by means of examination the persons who acquire proficiency in literature, science, and art, and to reward them by academical degrees as evidence of their respective attainments and by marks of honour proportioned thereto; and to encourage and assist the establishment of colleges within the University of Sydney, in which colleges systematic religious instruction and domestic supervision, with efficient assistance in preparing for the University lectures and examinations, shall be provided for students of the University: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative Council and Legislative Assembly of New South Wales in Parliament assembled, and by the authority of the same, as follows:—

## UNIVERSITY AND UNIVERSITY COLLEGES.

## PART I.

*Preliminary.*

1. This Act may be cited as the “University and University Colleges Act, 1900,” and is divided into Parts and Divisions, as follows:—

PART I.—*Preliminary.*—ss. 1-5.

PART II.—*Incorporation and constitution of the University and provisions relating to the Senate.*—ss. 6-18.

PART III.—*Examinations and degrees.*—ss. 19-23.

PART IV.—*Endowment and finance.*—ss. 24-29.

PART V.—*Students, licensed masters, and privileged officers.*—ss. 30-32.

PART VI.—*Colleges within the University*—

Division 1.—*Interpretation.*—s. 33.

Division 2.—*Endowment and subscribed fund*—

(i.) *Conditions of endowment.*—ss. 34, 35.

(ii.) *Endowment for building.*—s. 36.

(iii.) *Endowment for principal.*—ss. 37-39.

(iv.) *Interest on subscribed fund.*—s. 40.

Division 3.—*Government of students.*—s. 41.

Repeal  
Schedule.

2. (1) The Acts mentioned in the Schedule to this Act are, to the extent therein expressed, hereby repealed.

Officers  
under Acts  
hereby  
repealed.

(2) All persons elected or appointed under the Acts hereby repealed, and holding office at the time of the passing of this Act, shall continue in office as if this Act had been in force at the time they were appointed, and they had been appointed hereunder.

Regulations  
or by-laws  
under Acts  
hereby  
repealed.

(3) All regulations or by-laws made under the authority of any Act hereby repealed, and being in force at the time of the passing of this Act, shall be deemed to have been made under the authority of this Act, and references in such regulations to the provisions of any Act hereby repealed shall be deemed to be references to the corresponding provisions of this Act.

Interpre-  
tation.

3. In this Act, unless the context or subject-matter otherwise indicates or requires,—



“Bachelor” means any person upon whom the degree of Bachelor has been conferred by the University.

“Doctor” means any person upon whom the degree of Doctor has been conferred by the University.

“Fellow” means a member of the Senate.

“Master” means any person upon whom the degree of Master has been conferred by the University.

“University” means the University of Sydney.

4. Nothing in this Act shall be deemed to affect or interfere with any right, title, or interest of Her Majesty, Her Heirs and Successors, or in any way to limit the Royal Prerogative.

Act not to interfere with rights of Her Majesty  
14 Vic. No. 31, s. 24.  
Women to be admitted to University privileges.  
47 Vic. No. 17, s. 3.

5. The benefits and advantages of the University, and the provisions of this and any other Act relating thereto, shall be deemed to extend in all respects to women equally with men.

## PART II.

### *Incorporation and constitution of the University and provisions relating to the Senate.*

6. The University of Sydney is the body politic and corporate incorporated by that name under the Act fourteenth Victoria number thirty-one, and shall, by that name, have a perpetual succession and a common seal and power to sue and be sued, and to take, purchase, and hold all real and personal property whatsoever, whether the same is situate in New South Wales or elsewhere, and to grant, demise, alien, or otherwise dispose of the same, and also to do all other matters and things incidental or appertaining to a body politic.

The University of  
14 Vic. No. 31, s. 1.

Provided that the University shall not, unless with the approval of the Governor, alienate, mortgage, charge, or demise any of its lands, except by way of lease for any term not exceeding thirty-one years from the making thereof, by which lease there shall be reserved and made payable during the whole of the term the best yearly rent that can reasonably be obtained without any fine or foregift.

Proviso.  
*Ibid.* s. 2.

University  
to consist of  
a Senate.  
*Ibid.* s. 4.  
24 Vic. No.  
13, s. 2.

7. The said body politic and corporate shall consist of a Senate which shall be constituted by—

- (a) sixteen elective fellows, who shall be elected as hereinafter provided, and of whom at least twelve shall be laymen ; and
- (b) not fewer than three nor more than six *ex officio* Fellows, who shall be Professors of the said University in such branches of learning as the Senate shall from time to time by any by-law select.

Elections of  
Fellows.  
*Ibid.* s. 4.  
44 Vic. No.  
22, s. 3.

8. Every vacancy occurring by death, resignation, or otherwise among the elective Fellows shall be filled up as it occurs by the election, at a meeting duly convened for the purpose, of such other fit and proper person as may be elected to fill such vacancy by the majority of the following persons present at such meetings, that is to say,—

- (a) Fellows ;
- (b) Officials declared by this Act to have the same rights and privileges within the University as Masters and Doctors ;
- (c) Graduates keeping their names in accordance with any by-law in that behalf on the register of the University who have taken within the University the degree of Master or of Doctor ;
- (d) Bachelors and all other persons who obtain any certificate which the Senate by by-law declares to be equivalent to the degree of Bachelor, if such Bachelors or other persons are of three years standing in the University, after obtaining such degree or certificate, and are of the age of twenty-one years.

Vacancies.  
24 Vic. No.  
13, s. 4.

9. Unless by death or resignation no vacancy among the elective Fellows shall occur for any cause not previously specified in some by-law of the University.

Chancellor.  
14 Vic. No.  
31, s. 4.  
24 Vic. No.  
13, s. 5.

10. (1) The Senate shall elect out of their own body, by a majority of votes, a Chancellor of the University, who shall hold office for such period as the Senate shall from time to time appoint.

(2) Whenever a vacancy occurs in the said office by death, resignation, or otherwise, the Senate shall, in like manner, elect out of their own body, a person to fill that office.

Vacancies in office of Chancellor.

11. (1) The Senate shall annually, on a day of which due notice has been given, elect out of their own body a Vice-Chancellor of the University, who shall hold office for one year.

Vice-Chancellor.  
14 Vic. No. 31, s. 6.  
24 Vic. No. 13, s. 5.

(2) Whenever a vacancy occurs in the said office by death, resignation, or otherwise before the expiration of the year of office, the Senate shall, as soon as conveniently may be, hold a meeting of which due notice has been given, and at such meeting elect out of their own body some other person to be Vice-Chancellor for the remainder of the year.

Vacancies in office of Vice-Chancellor.

(3) Any Vice-Chancellor shall be capable of re-election as often as is deemed meet.

Vice-Chancellor eligible for re-election.  
Chairman.  
14 Vic. No. 31, s. 10.  
24 Vic. No. 13, s. 5.

12. (1) At every meeting of the Senate the Chancellor or, in his absence, the Vice-Chancellor shall preside as chairman, but if the Chancellor and Vice-Chancellor are both absent, the Fellows present shall elect a chairman.

13. (1) All questions which come before the Senate shall be decided at any meeting duly convened, at which a quorum is present, by a majority of the votes of the Fellows present.

Questions how decided  
14 Vic. No. 31, s. 9.

(2) The chairman at any such meeting shall have a vote, and in case of an equality of votes a second or casting vote.

Chairman.

(3) At any such meeting—

(a) five Fellows of whom the Chancellor or Vice-Chancellor shall be one; or

Quorum.  
*Ibid.*  
16 Vic. No. 28, s. 1.

(b) in the absence of both the Chancellor and Vice-Chancellor, eight Fellows

shall form a quorum.

14. (1) The Senate shall have full power to appoint and dismiss all professors, tutors, officers, and servants of the University.

Senate may appoint and dismiss officers.  
14 Vic. No. 31, s. 8.

(2) The Senate shall have the entire management of and superintendence over the affairs, concerns, and

And to have entire management.

property of the University, and in all cases unprovided for by this Act the Senate may act in such manner as appears to them to be best calculated to promote the purposes of the University.

By-laws.  
*Ibid.* ss. 8,  
15, 21.  
44 Vic. No.  
22, s. 2.

15. (1) The Senate may make by-laws and regulations relating to—

- (a) the discipline of the University; and
- (b) examinations for and the granting of scholarships, exhibitions, degrees, certificates or honours; and
- (c) the conferring of *ad eundem* degrees;
- (d) the mode and time of convening meetings of the Senate; and
- (e) all other matters whatsoever regarding the University;

Provided that no such by-law or regulation shall be repugnant to any existing law or to the general objects and provisions of this Act.

Approval of  
Governor.

(2) All such by-laws and regulations shall be reduced to writing and submitted for the consideration and approval of the Governor, and when approved shall be countersigned by him, and when so countersigned and sealed with the seal of the University shall be of full force and effect.

To be laid  
before the  
Legislative  
Council and  
Legislative  
Assembly.

(3) The Colonial Secretary shall lay every such by-law and regulation before the Legislative Council and Legislative Assembly during the session of Parliament in which it becomes in force or within six weeks after the beginning of the next ensuing session.

Evidence.

(4) Any such by-law or regulation may be proved in any Court by the production of a verified copy under the seal of the University.

University  
to report  
their pro-  
ceedings  
to the  
Governor.  
14 Vic. No.  
31, s. 22.  
Copy of  
report to be  
laid before  
Legislative  
Council or  
Legislative  
Assembly.

16. (1) The University shall once at least in every year, and also whenever the pleasure of the Governor may be signified in that behalf, report their proceedings to the Governor.

(2) A copy of such report shall be laid before the Legislative Council and Legislative Assembly within six weeks after it is made if Parliament is then in session, or, if not, then within six weeks after the beginning of the next ensuing session.

17. The Governor of New South Wales shall be the visitor of the University, with authority to do all things that pertain to visitors as often as he deems meet.

Visitor.  
*Ibid.* s. 16.

18. No religious test shall be administered to any person in order to entitle him to be admitted as a student of the University, or to hold any office therein, or to partake of any advantage or privilege thereof.

Religious  
tests.  
*Ibid.* s. 20.

Provided that this enactment shall not be deemed to prevent the making of regulations for securing the due attendance of the students for divine worship at such church or chapel as their parents or guardians may approve.

### PART III.

#### *Examinations and degrees.*

19. (1) The Senate may give such instruction as it thinks fit, and may, after examination, confer the several degrees of Bachelor, Master, and Doctor, and such other degrees and such certificates in the nature of degrees as it thinks fit in all branches of knowledge, except theology and divinity.

Degrees.  
14 Vic. No.  
81, s. 13.  
47 Vic. No.  
17, s. 1.

Provided that no student in the University shall be compelled to attend lectures upon or pass examinations in any of the following subjects, namely:—Ethics, metaphysics, and modern history.

(2) All persons who obtain any certificate or qualification which the Senate by by-law declares to be of equivalent rank to the degree of Bachelor shall have the same rights and privileges within the University as Bachelors.

Status of  
holders of  
certificates.  
*Ibid.* s. 2.

20. (1) At the conclusion of every examination of candidates the examiners shall declare the name of every candidate whom they deem entitled to any degree, and also—

Examiners  
to declare  
results of  
examina-  
tions.  
14 Vic. No.  
81, s. 14.

(a) the departments of knowledge in which his proficiency has been evinced; and

(b) his proficiency in relation to that of other candidates.

**Certificates.**

(2) The Chancellor shall give every such candidate a certificate under the seal of the University and signed by such Chancellor, in which the particulars so declared shall be stated.

**Ad eundem  
degrees.  
44 Vic. No.  
22, s. 1.**

21. (1) When any person has obtained in any University, recognised by the by-laws of the University in force for the time being, any degree corresponding or equivalent to any degree which the Senate is now or may hereafter be empowered to confer after examination, the Senate may confer such latter degree upon such persons without examination.

**Rights of holders.**

(2) The persons upon whom degrees are conferred, under the provisions of the preceding subsection, shall be entitled to the same rights and privileges as appertain to those who have taken the same degrees in the ordinary course in the University.

**Senate may  
authorise  
educational  
establish-  
ments to  
issue certi-  
ficates.  
4 Vic. No.  
31, s. 11.**

22. (1) The Senate may authorise any college or educational establishment, whether incorporated or not, instituted for the promotion of literature, science, or art, to issue to candidates for the degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, and Doctor of Laws certificates to the effect that the candidate for any such degree has completed such course of instruction therefor as the Senate by regulation prescribes.

**Upon which  
degrees may  
be granted.**

(2) Any person who presents to the Senate any such certificate may be admitted as a candidate for the degree to which it has reference.

**Report on  
medical  
establish-  
ments by  
Senate.  
14 Vic. No.  
31, s. 12.**

23. (1) For the purpose of granting the degrees of Bachelor of Medicine and Doctor of Medicine, and for the improvement of medical education in all its branches, as well in medicine as in surgery, midwifery, and pharmacy, the Senate may report to the Governor the medical institutions and schools, whether incorporated or not, in the city of Sydney, from which, either singly or jointly with other medical institutions and schools in New South Wales or in foreign parts, it appears to the Senate fit and expedient to admit candidates for medical degrees.

**Candidates  
from such  
establish-  
ments may  
be admitted  
to degrees.**

(2) On approval of such report by the Governor, the Senate shall admit as a candidate for the degree of Bachelor of Medicine or Doctor of Medicine any person

who presents to the Senate a certificate from any such institution or school to the effect that such person has completed the course of instruction therefor which the Senate by regulation prescribes.

#### PART IV.

##### *Endowment and finance.*

24. (1) By way of permanent endowment for the University the Governor is hereby empowered by warrant, under his hand, to direct to be issued and paid out of the Consolidated Revenue Fund the sum of five thousand pounds in every year as a fund for building, and for defraying the several stipends appointed to be paid to the several professors or teachers of literature, science, and art, and to such necessary officers and servants as are from time to time appointed by the Senate, and for defraying the expense of such prizes, scholarships, and exhibitions as are awarded for the encouragement of students in the University, and for providing gradually a library for the same, and for discharging all incidental and necessary charges connected with the current expenditure thereof.

Permanent  
endowment.  
*Ibid.* s. 3.

Provided that the Senate may apply any portion of the said endowment fund to the establishment and maintenance of a college in connection with and under the provisions of the University.

Proviso.  
*Ibid.* s. 11.

(2) The said sum shall be paid in four equal quarterly instalments, on the first day of January, the first day of April, the first day of July, and the first day of October, in every year.

To be paid  
in quarterly  
instalments.

25. The Senate may charge such reasonable fees for the respective degrees conferred as they with the approbation of the Governor direct. Such fees shall be carried to one general fee fund for the payment of the expenses of the University.

Fees for  
degrees.  
14 Vic. No.  
31, s. 13.

26. The Senate may by any by-laws or regulations provide for payment by the students of the University of reasonable fees to the professors or teachers for

Fees to Pro-  
fessors and  
teachers.  
*Ibid.* s.

attendance on their lectures. Such professors or teachers may, in addition to their stipends, demand and receive such fees from the students.

Fees for entrance, &c.  
*Ibid.* s. 17.

27. The Senate may in like manner provide for payment by such students of reasonable fees for entrance, degrees, certificates, and other University charges. The Treasurer of the University shall, on behalf of the University, collect such fees from the students.

Powers of the Senate in respect of Levey's legacy.  
17 Vic. No. 18, s. 5.

28. The securities representing the investments of the sum of money bequeathed by the late Solomon Levey, Esquire, to the Sydney College, with the interest thereon, shall be held by the Senate upon trust to continue to hold the same, or to alter them from time to time in favour of other investments at interest upon such security and in such manner in all respects as the Senate in their absolute discretion think fit, and the clear or net interest or income arising therefrom shall be applied in or towards the endowment of a scholarship in the University under such regulations as the Senate, in their absolute and uncontrolled discretion in respect of making and altering the same, deem to be as nearly as circumstances permit in accordance with the intention of the said Solomon Levey in making the aforesaid bequest.

Accounts of annual income and expenditure to be laid before the Legislative Council and Assembly.  
14 Vic. No. 31, s. 13.

29. The Senate shall once in every year transmit a full account of the whole income and expenditure of the University to the Colonial Secretary, who shall submit the same to the Legislative Council and Legislative Assembly to be subjected to such examination and audit as such Council and Assembly may direct.

## PART V.

### *Students, licensed masters, and privileged officials.*

Residence of students.  
*Ibid.* s. 18.

30. No student shall be allowed to attend the lectures or classes of the University unless he dwells—

- (a) with his parents or guardian; or
- (b) with some relative or friend selected by his parents or guardian and approved by the Chancellor or Vice-Chancellor; or



- (c) in some collegiate or other educational establishment; or
- (d) with a tutor or master of a boarding-house licensed by the Chancellor or Vice-Chancellor as hereinafter mentioned.

31. (1) Every person desirous of being licensed as a tutor or master of a boarding-house in connection with the University shall apply for his license to the Chancellor or Vice-Chancellor in writing under his hand specifying the house or houses belonging to or occupied by the applicant and intended by him for the reception of students, and the number of students who may be conveniently lodged and boarded therein.

Licensing persons with whom students may reside. 14 Vic. No. 31, s. 19.

(2) Such Chancellor or Vice-Chancellor may require of any such applicant testimonials of character and fitness for the office, and thereupon may grant or withhold the license for the academical year then current or then next ensuing.

Powers of Chancellor or Vice-Chancellor.

(3) Every such license shall be registered in the archives of the University and shall lapse at the end of the academical year in which it was registered, but may be renewed by the Chancellor or Vice-Chancellor and re-registered.

License to be registered.

(4) Every such license shall be revocable at any time, and the Chancellor or Vice-Chancellor may forthwith revoke the same in case of any misbehaviour of such tutor or master of a boarding-house or of the students under his care which, in the opinion of the Chancellor or Vice-Chancellor and a majority of the professors of the University, ought to be punished by immediate revocation of such license.

Revocation of license.

32. Each and every of the following officials, that is to say—

- (a) every professor and other public teacher and examiner in the schools of the University; and
- (b) every principal of any incorporated college within the University; and
- (c) every superior officer of the University declared to be such by any by-law

Members of the University. 24 Vic. No. 13, s. 3.

shall, during his tenure of office, but no longer, have the same rights and privileges within the University as are enjoyed by Masters and Doctors.

## PART VI.

### *Colleges within the University.*

#### Division 1.—*Interpretation.*

Interpreta-  
tion.  
18 Vic. No.  
87, s. 10.

33. In this part of this Act, unless the context or subject-matter otherwise indicates or requires,—

“College” means a college within the University.

“Principal” includes the master, warden, rector, or any other head of a college.

#### Division 2.—*Endowment and subscribed fund.*

##### (i) *Conditions of endowment.*

Endowment  
of Colleges.  
18 Vic. No.  
87, s. 1.

34. Whenever—

(a) any college has been established and incorporated by any Act; and

(b) the founders of or subscribers to such college have complied with the conditions mentioned in the next section,

such college shall be entitled to the endowments hereinafter severally mentioned, which said endowments shall be paid by the Treasurer under warrants signed by the Governor.

Conditions  
of endow-  
ment.  
*Ibid.* s. 2

35. No such college although incorporated shall be entitled to such endowments unless and until the sum of ten thousand pounds at the least has been subscribed by its founders, and of that sum not less than four thousand pounds has been paid and invested in such manner as the Governor approves, and the residue has been to his satisfaction secured to be paid within three years next following; nor unless

(a) the whole of the said ten thousand pounds is to be devoted exclusively to the erection of college buildings on land granted for that purpose by Her Majesty to the University in trust for such

college, if any is so granted, and if not then upon land otherwise conveyed to and accepted by the University in such trust; and

- (b) it has been agreed by the founders that the entire amount shall be so expended, if the University so requires, within five years next after the first payment on account of either of such endowments.

(ii) *Endowment for building.*

36. There shall be paid out of the Consolidated Revenue, in aid of the building fund of every college so incorporated, a sum or sums not exceeding in the whole twenty thousand pounds, nor more than has been from time to time actually expended by the college out of its subscribed funds for the purpose of building. Endowment for building  
*Ibid.* s. 3.

(iii) *Endowment for principal.*

37. There shall be paid out of the said Consolidated Revenue annually, to such incorporated college in perpetuity, a sum of five hundred pounds for the use of and as a salary to the principal of such college or in aid of such salary. Endowment for principal's salary.  
*Ibid.* s. 4.

38. Every such principal shall be entitled to the annual salary hereby provided for on the production of his own certificate at the time of each payment that he has during the period to which it relates performed the duties of his office. Conditions as to such endowment  
*Ibid.* s. 5.

Provided that he shall transmit to the Colonial Secretary once in each year a certificate to the like effect under the hands of such persons as are for that purpose appointed by the constitution or rules of the particular college.

39. Where any person selected to be the principal of any such college is out of New South Wales at the time of his appointment no such certificate shall be required until after he has actually entered on his duties, but he shall be entitled to the salary, and the college to which he has been appointed may receive the same accordingly for his use from the day of his embarkation for New South Wales. Provision where selected principal is out of New South Wales.  
18 Vic. No. 37, s. 6.

Provided that every principal shall actually enter on his duties within six months after such embarkation unless the Governor, upon being satisfied that unavoidable obstacles have intervened, thinks fit to extend that term to nine months.

(iv) *Interest on subscribed fund.*

Accruing  
proceeds of  
subscribed  
fund until  
expended in  
building.  
*Ibid.* s. 7.

40. Until the subscribed fund is required for the erection of college buildings as aforesaid, the interest or other proceeds accruing from the investment thereof, or of the portion remaining unexpended from time to time, may be applied to the general purposes of the college as the governing body of such college may determine.

Division 3.—*Government of students.*

Students of  
Colleges to  
be members  
of Univer-  
sity and  
attend  
lectures.  
*Ibid.* s. 8.

41. All students in any such college shall immediately upon entering therein matriculate in the University, and shall thereafter submit and be subject to the discipline thereof, and shall be required duly and regularly to attend the lectures of the University on those subjects an examination and proficiency in which are required for honours and degrees, with the exception, if thought fit by any such college, of lectures on ethics, metaphysics and modern history.

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# UNIVERSITY AND UNIVERSITY COLLEGES.

19

## SCHEDULE.

Reference to Act.	Title or Short Title.	Extent of repeal.
14 Vic. No. 31..	An Act to incorporate and endow the University of Sydney.	The whole.
16 Vic. No. 28..	An Act to amend an Act intituled an Act to incorporate and endow the University of Sydney.	The whole.
17 Vic. No. 18..	An Act to enable the University of Sydney to purchase the Sydney College with the land attached thereto.	The whole.
18 Vic. No. 37..	An Act to provide for the establishment and endowment of colleges within the University of Sydney.	The whole.
22 Vic. No. 8..	An Act to amend an Act intituled an Act to provide for the establishment and endowment of colleges within the University of Sydney.	The whole.
24 Vic. No. 13..	An Act to amend the Sydney University Incorporation Act.	The whole.
44 Vic. No. 22..	"Ad eundem Degrees Act of 1881."	The whole.
47 Vic. No. 17..	"University Extension Act of 1884."	The whole.

**THE UNIVERSITY AND UNIVERSITY COLLEGES  
(AMENDMENT) ACT, 1902.**

**THE UNIVERSITY AND UNIVERSITY  
COLLEGES (AMENDMENT) ACT, 1902.**

[Assented to 4th December, 1902.]

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An Act to amend the University and University Colleges Act 1902.

BE it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Legislative Assembly of New South Wales in Parliament assembled, and by the authority of the same, as follows:—

Short title.

1. This Act may be cited as the "University and University Colleges (Amendment) Act, 1902," and shall be construed with the University and University Colleges Act, 1900, hereinafter called the Principal Act.

Increase of endowment from £5000 to £10,000.

2. Subsection one of section twenty-four of the Principal Act is amended by the substitution of the word "ten" in place of the word "five" where it occurs in that subsection.

Students of training schools and others to attend lectures on arts or science free.

3. The Senate shall allow students of training schools established under the Public Instruction Act of 1880 and such other persons training for the position of teacher under the Department of Public Instruction as the Minister may approve to attend, for the purpose of graduating in Arts or Science, the University lectures for the period required for such graduation, without the payment of any fees, provided that such students and other persons shall previously have passed the entrance examination prescribed by the University by-laws.

# BY-LAWS OF THE UNIVERSITY.

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*All By-laws heretofore passed by the Senate and now in force are hereby repealed, and in lieu thereof the following By-laws shall be and are hereby declared to be the By-laws under which the University of Sydney shall henceforth be governed. Provided always, that nothing herein contained shall be deemed to revive any By-law previously repealed, or to prejudice any matter already done or commenced under any By-law hitherto in force.*

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## CHAPTER I.—THE CHANCELLOR AND VICE-CHANCELLOR.

1.—The election to the office of Chancellor shall take place<sup>5-7-87</sup> at a duly convened meeting of the Senate to be held in Lent Term.

2.—The Chancellor shall be elected for a period of three<sup>5-7-87</sup> years (except as hereinafter provided), to be computed from the date of election, but shall be eligible for re-election.

3.—In the event of the office of Chancellor becoming vacant<sup>5-7-87</sup> by death, resignation, or otherwise, before the expiration of the full term of office herein prescribed, the election of a successor shall be proceeded with at the next ensuing regular meeting of the Senate, and the Chancellor so appointed shall hold office until the Lent Term next after the expiration of three years from the date of such election.

4.—The election of Vice-Chancellor shall take place annually<sup>5-7-87</sup> at a duly convened meeting of the Senate, to be held in Lent<sup>64 v.</sup> Term, except as in cases otherwise provided by the Act of<sup>s. 11.</sup> Incorporation.

5.—The Chancellor and Vice-Chancellor shall be members<sup>6-5-90</sup> *ex-officio* of every Faculty, Board, or Committee appointed by any By-law or otherwise by the Senate; and at every meeting of any such Faculty, Board, or Committee, the Chancellor, or in his absence the Vice-Chancellor, or, in the absence of both, the Chairman shall preside, or in his absence a member elected for that sitting. The President at such meetings shall have a vote, and in case of an equality of votes, a second or casting vote.

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**NOTE.**—The dates in the margin are the dates of the approval of the various By-laws by His Excellency the Governor in Council.

## CHAPTER II.—SENATE.

## MEETINGS AND RULES OF PROCEDURE.

- 7-11-93 1.—The Senate shall meet on the first Monday in every month, or on the nearest convenient day should such first Monday be a public holiday, and may adjourn from time to time to conclude any unfinished business.
- 5-7-87 2.—At any time in the interval between such meetings it shall be competent for the Chancellor, or in his absence the Vice-Chancellor, in any case of emergency, to call a special meeting of the Senate, to be held as soon as conveniently may be, for the consideration of any business which he may wish to submit to them.
- 5-7-87 3.—Upon the written requisition of any three members the Chancellor, or in his absence the Vice-Chancellor, or in the absence of both, the Registrar, shall convene a special meeting of the Senate, to be held as soon as conveniently may be after the expiration of seven days from the receipt of such requisition.
- 5-7-87 4.—Except in any case of emergency as aforesaid, no motion initiating a subject for discussion shall be made but in pursuance of notice given at the previous meeting, and every such notice shall be entered in a book to be kept by the Registrar for that purpose.
- 5-7-87 5.—The Registrar shall issue to each member of the Senate a summons with a written specification of the various matters to be considered at the next meeting of the Senate, whether such meeting be an ordinary or special one; and such summons, except in any case of emergency, as aforesaid, shall be issued at least three days previous to such meeting.
- 5-7-87 6.—In the event of a quorum\* of the Senate not being present at any meeting within half an hour after the hour appointed, the members then present may appoint any convenient future day, of which at least three days' notice shall be given by the Registrar in the usual manner.
- 5-7-87 7.—All the proceedings of the Senate shall be entered in a journal, and at the opening of each meeting the minutes of the preceding meeting shall be read and confirmed, and the signature of the chairman then presiding shall be attached thereto.
- 18-7-93 8.—If any Fellow shall, without leave from the Senate, be absent from the aforesaid meetings for six consecutive calendar months his fellowship shall, *ipso facto*, become vacant; provided that, in computing the said six consecutive months, the month of January shall not be taken into account.

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\* See University and University Colleges Act, sec. 18, p. 9.



## ELECTION TO VACANCIES.

9.—At the first meeting of the Senate after the occurrence<sup>5-7-87</sup> of a vacancy among the Fellows, a day shall be fixed for a Convocation for the election of a successor, such day to be within sixty days from the date of such Senate meeting, and to be announced at least thirty days before such Convocation, by notice posted at the University and by advertisement in one or more of the daily newspapers. Due notice shall also be given of the day on which a ballot shall be taken, should such be required. Provided that no Convocation shall be held in the month of January.

10.—No person shall be eligible for election to fill any vacancy<sup>5-7-87</sup> among the Fellows unless his candidature shall have been communicated to the Registrar under the hands of two qualified\* voters ten clear days at least before the intended Convocation, and seven clear days at least after the fixing of the day for such Convocation; and it shall be the duty of that officer to cause the name of such person and the fact of his candidature to be forthwith advertised in one or more of the daily newspapers published in Sydney, and to be posted in a conspicuous place in the University for eight clear days at least before such Convocation.

11.—The Convocation for the election of a Fellow shall be<sup>5-7-87</sup> held in the University,† and shall be presided over in the same manner as if it were a meeting of the Senate. Every candidate submitted for election must be proposed and seconded by legally qualified voters. If one candidate only or one only for each vacancy be so proposed and seconded, then such candidate or candidates shall be declared by the President to be duly elected. But if more candidates are proposed and seconded than there are vacancies in the Senate to be filled at such Convocation, a show of hands shall be taken; and unless a ballot be demanded by at least two members of Convocation then present, the President shall declare the candidate or candidates in whose favour there shall be the greatest show of hands to be duly elected. Should a ballot be demanded it shall be conducted in the following manner:—

(a) The voters then present shall choose two or more members of Convocation to act as scrutineers.

\* The legally qualified voters are Fellows of the Senate for the time being, Professors, Public Teachers and Examiners in the Schools of the University, Principals of Incorporated Colleges within the University, Superior Officers of the University declared to be such by By-law, Graduates holding the Degree of Master or Doctor, and Graduates of three years' standing, who hold the Degree of Bachelor. University and University Colleges Act, secs. 8 and 32.

† By a resolution of the Senate, of date July 2, 1888, ballots for the election of Fellows may be held at the Royal Society's Rooms, or in some other central place within the city of Sydney, to be named by the Senate, or by the Chancellor, or by the Vice-Chancellor in his absence.

- (b) The ballot shall not be held earlier than one week from the day of nomination at Convocation, and shall be notified by notice posted in the University and by advertisement in one or more of the daily newspapers.
- (c) The ballot shall commence at 10 a.m., and close at 2 p.m., on the day appointed.
- (d) At the expiration of the time allotted for the ballot the scrutineers shall proceed to the examination of the voting papers, and shall report the result to the President, who shall then declare the candidate or candidates having the majority of votes to be duly elected to the vacant seat or seats in the Senate.
- (e) In the event of an equality of votes, the election shall be decided by the casting vote of the President.

5-7-87 12.—Before the time fixed for the Convocation for the election of a Fellow, the Registrar shall prepare for the President's use a complete list of all persons entitled to vote under the provisions of the law, and a copy of such list shall be posted in a conspicuous place in the University for two days at least before the time of Convocation.

5-7-87 13.—None but legally qualified voters shall be allowed to be present during the taking of a ballot.

#### EX-OFFICIO MEMBERS.

[University and University Colleges Act, 1900, Sec. 7 (b)]

1-11-04 14.—The Senate hereby makes and declares the following selections of branches of learning, the Professors in which shall be *ex-officio* members of the Senate—that is to say, Modern Literature, Law, Physiology and Geology and Physical Geography, such selections to take effect from the date of the Governor's assent hereto, and to endure until the thirtieth day of September, one thousand nine hundred and six, unless sooner revoked by the authority of the Senate, and with the approval of the Governor.

#### CHAPTER III.—MEETINGS OF CONVOCATION OTHER THAN FOR THE ELECTION OF FELLOWS.

25-11-87 1.—The Chancellor, or in his absence, the Vice-Chancellor, shall, in pursuance of a resolution of the Senate, or upon the receipt of a requisition signed by at least twenty members of

Convocation, summon a meeting of Convocation to be holden at such time and place as he shall direct. And such meeting shall be held accordingly within twenty-eight days from the date of the requisition. And notice of such meeting shall be given by public advertisement not less than fourteen days before the day appointed for the meeting. Provided that every such requisition shall specify the subjects which it is proposed to bring before Convocation. And if, in the opinion of the summoning officer, the subjects so specified, or any of them, are such as ought not to be discussed in Convocation, he shall refer the matter to the Senate, which shall decide whether the meeting shall be held or not. Provided that no such meeting shall be held in the month of January.

2.—At all meetings so summoned the Chancellor, or in his<sup>25-11-87</sup> absence the Vice-Chancellor, shall preside. In the absence of the Chancellor and Vice-Chancellor, the members of Convocation present shall elect one of their number to be president of that meeting.

3.—The presence at any meeting of twenty-five members of<sup>25-11-87</sup> Convocation shall be necessary to form a quorum. And if within half an hour from the time of meeting there shall be no quorum present, the meeting shall lapse.

4.—At all meetings of Convocation the Registrar shall act<sup>25-11-87</sup> as Secretary, and keep the minutes of all proceedings.

5.—Every meeting may be adjourned by the President to<sup>25-11-87</sup> such day and hour as may be fixed by resolution.

6.—All questions submitted to the Convocation shall be<sup>25-11-87</sup> decided by a majority of members present. The President shall have a deliberative as well as a casting vote.

7.—All resolutions of Convocation shall be signed by the<sup>25-11-87</sup> President, and shall be laid by the Registrar before the Senate at its next meeting.

8.—All members of Convocation attending any such meeting<sup>25-11-87</sup> shall appear in the habit of their Degree.

#### CHAPTER IV.—SUPERIOR OFFICERS.

[University and University Colleges Act, 1900. Section 32 (c).]

1.—The Registrar and the Solicitor to the University are<sup>5-7-87</sup> hereby declared to be Superior Officers of the University, entitled to the rights and privileges conferred by the "Sydney University Incorporation Act Amendment Act of 1861."

## CHAPTER V.—THE REGISTRAR.

5-7-87 1.—The Registrar shall keep all necessary records of the proceedings of the University, conduct all necessary correspondence, and keep such registers and books of account as may be required.

5-7-87 2.—All fees, fines, or other sums received by the Registrar in his capacity as such shall be paid into the Bank of the University, in order that the same may be applied, accounted for, and audited in such manner as the Senate may from time to time appoint.

## CHAPTER VI.—THE SEAL OF THE UNIVERSITY.

5-7-87 1.—The Seal of the University shall be placed in the charge of the Chancellor or Vice-Chancellor and Registrar, and shall not be affixed to any document except by order of the Senate.

## CHAPTER VII.—THE FACULTIES.

5-7-87 1.—There shall be four Faculties in the University, viz.:—  
1. Arts.      2. Law.      3. Medicine.      4. Science.

## DEANS OF FACULTIES.

9-2-92 2.—A Dean for each of the Faculties in the University shall be appointed by the Senate from time to time for a term not exceeding two years.

6-9-92 3.—In the event of the office of Dean becoming vacant by death, resignation, or otherwise before the expiration of the full term of office herein prescribed, the appointment of a successor shall be proceeded with at the next ensuing regular meeting of the Senate; and the Dean so appointed shall hold office until the first regular meeting of the Senate in the term next after the expiration of two years from the date of such appointment.

## CHAPTER VIII.—LIMITATION OF THE TITLE OF PROFESSOR.

5-7-87 1.—The title of Professor shall be distinctive of those Public Teachers of the University upon whom the Senate shall have conferred that title, and no person in or belonging to the University, or any College within it, shall be recognised as Professor without the express authority of the Senate.

## CHAPTER IX.—PROFESSORIAL BOARD.

27-9-92 1.—The Professors in the four Faculties, with the Chancellor and Vice-Chancellor, shall form a Board to be called "The Professorial Board."

2.—Subject to the By-laws of the University, the Professorial Board<sup>27-9-92</sup> shall manage and superintend the discipline of all students in the University, and shall have power to determine all matters concerning the studies and examinations which affect the students of more than one Faculty.

3.—For these purposes the Professorial Board shall make<sup>10-7-94</sup> such rules as it may think fit, provided that these rules be not repugnant to any existing By-law; and shall have power to impose any penalties, in accordance with Academic usage, on any student for breach of such rule, or misconduct of any kind. All Public Teachers in the University shall be authorised to inflict a fine for breach of discipline, not exceeding two pounds, provided that every Public Teacher who inflicts any such fine shall immediately report the circumstances in writing to the Professorial Board.

4.—Any member of the University affected by any decision<sup>27-9-92</sup> of the Board, or any member of the Board, may appeal therefrom to the Senate, and thereupon the Senate may review such decision, and either confirm, vary, or annul the same.

5.—It shall also be the duty of the Professorial Board from<sup>27-9-92</sup> time to time to consider the By-laws which deal with the discipline of the University, and the By-laws which deal with the studies of students of more than one Faculty; and when the Board is of opinion that any such By-laws require amendment, it shall send up recommendations to the Senate to that effect.

6.—A *précis* of the proceedings of the Board shall be laid<sup>27-9-92</sup> upon the table of the Senate once in each Term, or forthwith in matters of special importance, and the Senate shall have power of its own motion to review any decision of the said Board.

#### CHAIRMANSHIP OF BOARDS.

7.—The Chairman of the Professorial Board shall be elected<sup>7-1-02</sup> by the members present at a duly convened meeting to be held in Michaelmas Term. He shall hold office for a period of three years, and shall enter upon his office on the first day of January next following the date of his election. In the event of the office becoming vacant by death, resignation, or otherwise before the expiration of the full term herein prescribed, the election of a successor shall be proceeded with at the next ensuing meeting of the Board, and the Chairman so elected shall hold office for three years from the first day of January preceding the date of his election.

## CONVENING AND QUORUM OF BOARDS.

- 18-7-03 8.—Every meeting of any Board or Faculty shall be convened by written notice from the Registrar, by direction of and on a day named by the Chancellor, Vice-Chancellor, or Chairman, and on the requisition of any two members, addressed to the Registrar, a meeting shall be convened in like manner. At any meeting of the Professorial Board five shall form a quorum, and at any other meeting three shall form a quorum, unless otherwise provided. In case of an equality of votes, that of the presiding Chairman included, such Chairman shall have a casting vote.

## REGISTRAR TO ATTEND.

- 5-7-87 9.—It shall be the duty of the Registrar, if required, to attend the meetings of the several Boards and record their proceedings, to collect all fines imposed by the Professorial Board, and generally to assist in carrying out the directions and rules of every Board.

## CHAPTER X.—\* MATRICULATION.

- 24-1-05 1.—Candidates for any of the Degrees granted by the University shall be required to matriculate before entering upon the prescribed course.
- 24-1-05 2.—Candidates before being admitted to matriculation shall have passed one of the examinations required by the By-laws for admission to the prescribed courses in the different Faculties, or shall have been admitted *ad eundem statum*.
- 24-1-05 3.—Undergraduates of other Universities may, at the discretion of the Professorial Board, be admitted *ad eundem statum* in this University without examination. Provided always that they shall give sufficient evidence of their alleged *status* and of good conduct.
- 24-1-05 4.—Any person desirous of attending University lectures may do so without matriculation upon payment of such fees as the Senate may from time to time direct.
- 5.—The examination for matriculation shall include the following subjects :—

## DIVISION A.

- I. English,
- II. Latin,
- III. Mathematics (Arithmetic, Algebra, Geometry),
- IV. Greek or French or German,

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\* The Regulations for Matriculation described in Chapter X. will come into operation in March, 1907. The by-laws regulating the Matriculation Examination of March, 1906, will be found in the University Calendar for 1904, but full details of the subjects of the Examination will be found in this Calendar see index.

at a lower standard. Candidates who have passed the Junior Public Examination, and have satisfied the examiners in these subjects, in accordance with regulations\*, will be considered to have satisfied the requirements of this division.

## DIVISION B.

- I. Higher Latin,
- II. Higher English,
- III. Higher Mathematics (Algebra, Geometry, Trigonometry),
- IV. Higher Greek,
- V. Higher French,
- VI. Higher German,
- VII. Mechanics,
- VIII. One of the following subjects :—(a) Botany, (b) Chemistry (Inorganic), (c) Geology, (d) Physics Part I., (e) Physics, Part II. (f) Physiology, (g) Zoology.
- IX. Modern History.

At a higher standard. Candidates who have passed the Senior Public Examination, and have satisfied the examiners in these subjects, will be considered to have satisfied the requirements of this division.

Candidates will be required to pass in the subjects of Division A, and in such subjects of Division B as are prescribed hereunder for admission to the respective Faculties or departments of study.

Candidates may present themselves for the subjects prescribed in divisions A and B of this examination successively or concurrently, but must pass in the total number of subjects required at not more than two examinations, one of which must include all the prescribed subjects at the higher standard, provided that the higher examination in any subject shall be held to include the lower.

6.—In addition to the examination at the lower standard<sup>24-1-05</sup> described in Division A, the requirements in respect of the subjects at the higher standard (Division B) for admission to the various Faculties, shall be as follows:—

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\* Under the existing regulations, a candidate must have obtained at least second classes in the three languages prescribed, or in the three Mathematical subjects, or not less than second classes in four of the six subjects.

- (a) For the Faculty of Arts every candidate shall be required to pass in two subjects of Division B, of which one must be Higher Latin.
- (b) For the Faculty of Law every candidate shall be required to pass in three subjects of Division B, one of which must be Higher Latin.
- (c) For the Faculty of Medicine every candidate shall be required to pass in three subjects of Division B, one of which must be Higher Latin, Higher Greek, Higher French or Higher German.
- (d) For the Faculty of Science every candidate shall be required to pass in three subjects of Division B, one of which must be Higher Latin, Higher Greek, Higher French or Higher German.
- (e) For any of the departments in Engineering candidates shall be required to pass in three subjects of Division B, which must include Higher Mathematics and either Higher Latin, Higher Greek, Higher French or Higher German.

4-1-05      7.—A student who has passed the Matriculation Examination for the Faculty of Arts, has attended the lectures prescribed for students in the First Year of the Faculty of Arts, and has passed the First Year Examination in Arts, shall be qualified for admission to the curriculum in the Faculties of Law, Medicine and Science, and the Department of Engineering without further examination.

24-1-05      8.—The Matriculation Examination shall take place at the commencement of Lent Term, but the examiners in special cases, with the sanction of the Chancellor or Vice-Chancellor, are authorised to hold such examinations at such other times as may be deemed expedient.

24-1-05      9.—The examination shall be conducted by means of written or printed papers, but the examiners shall not be precluded from putting *visà voce* questions.

24-1-05      10.—The names of all candidates who have passed the Matriculation Examination shall be arranged and published in such order as the Board of Examiners shall determine.

24-1-05      11.—Any person who shall have passed an examination qualifying for admission to his faculty or department, and shall have paid a fee of two pounds to the Registrar, may be admitted as a matriculated student.



CHAPTER XI.—TERMS.

1.—The Academic year shall contain three terms, that is to say :—

Lent Term.—Commencing on the tenth Monday in the year and terminating with the Saturday before the twenty-second Monday in the year, with a recess at Easter not exceeding nine days.

Trinity Term.—Commencing on the twenty-fourth Monday in the year and terminating with the Saturday before the thirty-fourth Monday in the year.

MICHAELMAS TERM.—Commencing on the thirty-ninth Monday in the year and terminating with the Saturday before the fifty-first Monday in the year.

CHAPTER XII.—LECTURES.

1.—Lectures shall commence on the first day of Term, except in Lent Term, in which they shall commence on the third Monday of Term. In Michaelmas Term the lectures shall cease on the Saturday before the forty-ninth Monday in the year.

2.—Lectures of an hour each shall be given by the Professors and other teachers at such times and in such order as the Senate may from time to time direct.

3.—Before the admission of a student to any course of lectures he shall pay to the Registrar of the University the fee appointed by the Senate.

4.—Full and complete tables of lectures and subjects of examinations shall be printed annually in the Calendar, and posted at the University from time to time.

5.—Each Professor and Lecturer shall keep a daily record or class roll of the lectures delivered by him, showing the number and names of the students present at each lecture. These class rolls shall be laid on the table at the end of each Term.

6.—Any undergraduate not holding a scholarship in the University, nor being a member of a college established under the provisions of the Act 18 Victoria, No. 37, may be exempted from attendance upon any or all of the prescribed lectures, upon producing evidence which shall satisfy the Faculty to which he belongs that there are sufficient reasons for such exemption. Provided that no such exemption shall be granted for more than one year at any time.

27-9-92 7.—No such exemption shall be granted until the Examiners shall have specially certified to the Faculty that the abilities and attainments of the applicant are such as to enable him, in their opinion, to keep up with the usual course of study at the University without attendance upon lectures. Undergraduates admitted *ad eundem statum*, and who are not required to pass the Matriculation Examination, shall nevertheless be required to pass a special examination, to be certified by the Examiners as above, before obtaining exemption from attendance upon lectures.

1-10-88 8.—Notwithstanding the provisions of By-laws 6 and 7, matriculated students, who are students in a Training Institution for teachers organised under the Department of Public Instruction, may be admitted to the First Year Examination in the Faculty of Arts without having attended the University lectures, upon presenting a certificate from the Under Secretary for Public Instruction to the effect that they have attended the course of instruction in such training institution for one year after matriculating. Students of a Training Institution who have passed the First Year Examination may be admitted to the Second Year Examination in the Faculty of Arts without having attended the University lectures of the second year, upon presenting a similar certificate to the effect that they have attended a second course of instruction in such training institution for one year after passing their First Year Examination. All such students having passed the Second Year Examination shall have the status of students commencing the third year in the Faculty of Arts.

#### CHAPTER XIII.—YEARLY EXAMINATIONS.\*

24-1-05 1.—In the Faculties of Arts, Law and Science the yearly B.A. and B.Sc. Examinations shall be held during the last week of Michaelmas Term, with the exception of the Examinations for Honours and Distinctions, which may be held at the beginning of Lent Term.

24-1-05 2.—No undergraduate not exempted under Section 6, Chap. XII., from attendance upon lectures shall be admitted to these examinations who, without sufficient cause, shall have absented himself more than three times during any one term from any prescribed course of lectures. At every yearly examination students must pass the prescribed examinations in the subjects of lectures before they can proceed with their course.

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\* As revised in connection with the amended curriculum which is to come into operation in March, 1907. See page 71 for by-laws lately repealed, which are still applicable to students entering the University in March, 1906.

3.—Students who fail to pass, or neglect to attend their <sup>24-1-05</sup> annual examinations in any subject or subjects, may be required by their respective Faculties, upon the report of the examiners, to attend again the lectures on such subject or subjects before again presenting themselves for examination.

4.—Every undergraduate exempted from attendance upon <sup>24-1-05</sup> lectures under Section 6, Chap. XII., shall, before being admitted to any yearly examination, pay to the Registrar a fee of two pounds.

5.—Undergraduates who have passed the yearly examinations <sup>24-1-05</sup> may, at the discretion of the Dean, and upon application, receive certificates to that effect, signed by the Dean of the Faculty in which they are pursuing their studies, and by the Registrar.

6.—Students who show proficiency in the examinations at the <sup>24-1-05</sup> termination of individual courses shall be classified as having passed with High Distinction, Distinction, or Credit. The term Honours shall be reserved to indicate special proficiency at graduation, and shall not be used in connection with the examinations at the termination of individual courses.

7.—At each examination additional papers shall be set <sup>24-1-05</sup> where necessary for Honours and Distinctions, and a list of the subjects prescribed for Honours and Distinctions shall be published annually in the Calendar.

8.—The names of those candidates who obtain Honours or <sup>24-1-05</sup> Distinctions shall be arranged in order of merit.

9.—Examiners shall be appointed from time to time by the <sup>24-1-05</sup> Senate to conduct the examinations provided for under these by-laws.

#### CHAPTER XIV.—SCHOLARSHIPS.

1.—Scholarships shall be awarded after examination as the <sup>5-7-87</sup> Senate may from time to time appoint.

2.—No Scholarship shall be awarded except to such <sup>18-7-93</sup> candidates as exhibit a degree of proficiency which shall be satisfactory to the Examiners. Scholars shall be required to proceed with their studies in the respective Faculties in which their Scholarships are awarded.

3.—The examination for Scholarships shall be concurrent <sup>5-7-87</sup> with the Matriculation and Yearly Examinations, additional papers and questions being set when required.

- 80-4-01 4.—No student of the University shall be allowed to hold more than two Scholarships at one time.

CHAPTER XV.—FACULTY OF ARTS.\*

- 24-1-05 1.—The Faculty of Arts shall consist of the Professors of Classics, Mathematics, Modern Literature, History, and Logic and Mental Philosophy, together with the Lecturers in the same subjects.
- 24-1-05 2.—The Faculty shall meet for the purpose of considering and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations, and degrees in Arts, and such questions as may be referred to it by the Senate, and shall have the general direction and superintendence over the teaching in Arts, subject to the By-laws, and to such resolutions as the Senate may pass in relation thereto.
- 24-1-05 3.—The Professors in the Faculty of Arts, together with such other persons as may from time to time be appointed by the Senate, shall form a Board of Examiners for conducting the examinations in the Faculty of Arts; and of this Board the Dean of the Faculty, or in his absence the Professor next in seniority, shall be Chairman.
- 24-1-05 4.—The Board of Examiners shall from time to time, and in accordance with the provisions of the By-laws for the time being, frame rules and appoint times and places for the several Examinations in the Faculty of Arts.
- 24-1-05 5.—At the conclusion of each Examination the Board shall transmit to the Senate a report of the result, signed by the Chairman and by at least two other members.
- 24-1-05 6.—Candidates for the degree of Bachelor of Arts shall be required at the commencement of their course to pass the Matriculation Examination for the Faculty of Arts prescribed in Chapter X., Sections 5 and 6.
- 24-1-05 7.—Candidates for the degree of Bachelor of Arts shall be required to attend the courses of lectures, covering a period of three years, and to pass the examinations prescribed in the following By-laws, subject to the following conditions:—
- (a) Every candidate shall be required to attend one full science course with practical work at some time during his curriculum, but the student may take

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\* As revised in connection with the amended curriculum which is to come into operation in March, 1907. See page 71.

(b) Of the ten courses necessary for graduation, at least two continuous courses shall be taken in two subjects, provided that, for the purposes of this By-law, the courses in Law shall be held to be continuous with those in History and Philosophy.

## List A.

- ### List B.

9. Students of the First Year shall be required to pass an examination in the subjects in which they have attended lectures under Section 8.

**24-1-05**

## List A.

- I. Latin II.
- II. Greek II.
- III. Mathematics II.
- IV. English II.
- V. French II.
- VI. German II.
- VII. History II.
- VIII. Philosophy II.
- IX. Chemistry II., including laboratory practice.
- X. Physics II.,                       ,,                       ,,
- XI. Geology II.,                     ,,                     ,,
- XII. Biology II.,                  ,,                  ,,
- XIII. Physiology I.,               ,,               ,,
- XIV. One of the following—(a) Roman Law, (b) Constitutional Law, (c) Jurisprudence and International Law.

**List B.**

**The courses prescribed in Section 8 for the First Year.**

**24-1-05**

**24-1-05**

### List A.

- I. Latin III.  
II. Greek III.  
III. Mathematics III.

- IV. English III.**
- V. French III.**
- VI. German III.**
- VII. History III.**
- VIII. Philosophy III.**
- IX. Chemistry III., including laboratory practice.**
- X. Physics III.,**                       ,,                       ,,
- XI. Geology III.,**                     ,,                     ,,
- XII. Biology III., A and B,**      ,,                     ,,
- XIII. Physiology II.,**               ,,                     ,
- XIV. Roman Law.**
- XV. Constitutional Law.**
- XVI. Jurisprudence and International Law.**
- XVII. Introductory Anatomy, Practical Histology, and Biology  
III , A.**

The Courses in Section 10 prescribed in List A for the Second Year.

14.—The work of students attending lectures shall be tested by means of written and oral class examinations, class exercises, or essays, and the results of such tests shall be reported to the Senate.

16.—The fee for the degree of Bachelor of Arts shall be <sup>24-1-05</sup> three pounds. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him. For any re-examination for the same degree he shall pay a fee of two pounds.

17.—The examination shall be conducted in the first instance 24-1-05  
by means of printed papers, and at the termination of such  
examination each candidate shall undergo a *vivâ voce* examination  
if the Examiners think fit.

24-1-05 18.—The degree of Bachelor of Arts with Honours in any given subject shall be awarded only to candidates who have attended a course of not less than two years' study in that subject, who have obtained Credit or Distinction at the Annual Examinations, and have satisfied the examiners as to their general proficiency.

24-1-05 19.—Students proceeding to the Degree of Bachelor of Arts who have passed the Second Year Examination with Distinction either in Classics (Latin and Greek) or in Mathematics, may elect to attend lectures during their third year in that subject only in which they have so passed; and if they obtain First or Second Class Honours in that subject they shall be held to have passed their Third Year Examination.

24-1-05 20.—The candidate for Honours who shall have most distinguished himself at the B.A. Examination in Classics, Mathematics, or Logic and Mental Philosophy, shall, if he possess sufficient merit, receive a bronze medal.

#### MASTER OF ARTS.

5-7-87 21.—There shall be a yearly examination for the Degree of M.A. during Lent Term, or at such other times as the Examiners, with the sanction of the Chancellor or Vice-Chancellor, may appoint.

5-7-87 22.—Every candidate for this Degree must have previously obtained the Degree of B.A., and two years must have elapsed since the time of his examination for such Degree. He will also be required to furnish evidence of having completed his twenty-first year.

5-7-87 23.—The fee for the Degree of M.A. shall be five pounds. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him, but he shall be admissible to any subsequent examination for the same Degree without the payment of an additional fee.

11-9-93 24.—Candidates for the Degree of M.A. shall elect to be examined in one or more of the following branches of knowledge :—

- I. Classical Philology and History.
- II. Mathematics and Natural Philosophy.
- III. Logic, Moral, Mental and Political Philosophy.
- IV. Modern Literature and Language.
- V. Modern History.



The candidate most distinguished in each branch at the examination shall, if he possess sufficient merit, receive a bronze medal.

25.—The Senate may, at its discretion, admit to examination <sup>5-7-87</sup> for the Degree of Master of Arts any person who shall have obtained at least two years previously the Degree of Bachelor of Arts, or equivalent first Degree in Arts, in any other University approved by the Senate. Every candidate for admission under this By-law must make application in writing to the Registrar and supply satisfactory evidence of his qualification as aforesaid, and that he is a person of good fame and character; and upon the approval of his application shall pay to the Registrar a fee of two pounds for the entry of his name in the University books, in addition to the prescribed fee for his Degree. Every candidate before he is admitted to this Degree shall be required to furnish evidence of having completed his twenty-first year.

## CHAPTER XVI.—FACULTY OF LAW.

1.—The Professor or Professors and Lecturers in the subjects <sup>20-1-03</sup> of the curriculum in Law, together with such Fellows of the Senate as are members of the Legal Profession, shall constitute the Faculty of Law.

2.—The Faculty shall meet for the purpose of considering <sup>20-1-03</sup> and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations, and degrees in Law, and such questions as may be referred to it by the Senate.

3.—The Dean of the Faculty of Law shall act as Chairman <sup>20-1-03</sup> at all meetings of the Faculty, but in his absence the members then present shall elect a Chairman from amongst themselves. The Chairman at such meetings shall have a vote, and in case of an equality of votes, a second or casting vote.

4.—It shall be the duty of the Registrar to summon meet- <sup>20-1-03</sup> ings of the Faculty at such times as may be required by the Dean; provided that upon a written requisition by three members of the Faculty, the Dean, or, in his absence, the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Faculty unless there be present at least five members.

5.—The Dean of the Faculty of Law shall exercise a general <sup>20-1-03</sup> direction and superintendence over the teaching in law, subject to such resolutions in relation thereto as may be passed by the Senate or by the Faculty of Law.

20-1-03 6.—There shall be two degrees granted in the Faculty of Law, viz.:—Bachelor of Laws (LL.B.) and Doctor of Laws (LL.D.)

24-1-05 7.—Candidates for the degree of Bachelor of Laws (LL.B.) shall, before admission to the Law School, produce evidence either, (i.) of having graduated in Arts; or (ii.) of having completed two years in the Faculty of Arts and passed the Second Year Examination in Arts; or (iii.) of having completed the First Year in the Faculty of Arts in accordance with the provisions of Chapter X., Section 7; or (iv.) of having passed the Entrance Examination prescribed in Chapter X., Sections 5 and 6.\*

20-1-03 8.—Thereafter candidates for the Degree of LL.B. shall attend such courses of instruction as may be prescribed by the Faculty in the following subjects, that is to say:—

I. In the First Year—

Constitutional Law ;

Roman Law ; and

The Law relating to Contracts (including Mercantile Law), Torts, Crimes and Domestic Relations.†

II. In the Second Year—

Jurisprudence, Legal History and the Elements of Political Science ;

International Law (Public and Private);

The Law of Property and the Elements of Conveyancing; and

The Rules of Legal Interpretation.

III. In the Third Year—

Procedure in Civil and Criminal Cases, both before the Supreme Court in its common law jurisdiction, and before courts of inferior jurisdiction; together with the Law of Evidence and Pleading; and

Equity and Company Law; the Law relating to Bankruptcy, Probate and Divorce; together with procedure in those jurisdictions.

Provided that candidates who have already graduated in Arts shall be at liberty to take this course in two years; whilst candidates who have not completed two years in Arts shall be

\* See note on page 28.

†In this and all other professional subjects the law referred to is the law in force in New South Wales.

required to extend this course over a period of not less than four years: Provided also that the order in which these courses of instruction are taken, may, in the case of any individual candidate, be varied with the written consent of the Dean of the Faculty.

9.—Candidates for the degree of Bachelor of Laws shall <sup>20-1-03</sup> also be required to pass two examinations, which shall be called respectively “the Intermediate LL.B.” and “the Final LL.B.” Examinations, and which shall be held at the commencement of Lent Term in each year. Candidates who have not acquitted themselves satisfactorily in such class or term examinations, or other exercises (including participation in moots and attendance in court) as may be prescribed by the Faculty, may be refused admission to these examinations.

10.—At the Intermediate LL.B. Examination candidates shall <sup>20-1-03</sup> be examined in:—(1) Constitutional Law; (2) Roman Law; (3) Jurisprudence, Legal History, and the Elements of Political Science; and (4) International Law (Public and Private). Provided that candidates shall be at liberty to take this examination in two sections, of which Section I. shall include Constitutional Law and Roman Law; and Section II. Jurisprudence, Legal History, the Elements of Political Science, and International Law (Public and Private).

11.—At the Final LL.B. Examination candidates shall be <sup>20-1-03</sup> examined in:—(1) The Law relating to Contracts (including Mercantile Law), Torts, Crimes, and Domestic Relations; (2) the Law of Property, and the Elements of Conveyancing; (3) Procedure in Civil and Criminal Cases, both before the Supreme Court in its common law jurisdiction and before courts of inferior jurisdiction, together with the Law of Evidence and Pleading, and the Rules of Legal Interpretation; and (4) Equity and Company Law, the Law relating to Bankruptcy, Probate and Divorce, together with procedure in those jurisdictions.

12.—The names of candidates who pass the Intermediate LL.B. <sup>20-1-03</sup> Examination shall be published in order of merit. The names of the candidates who pass the Final LL.B. Examination shall be published in three groups, comprising respectively (1) those who have obtained First Class Honours; (2) those who have obtained Second Class Honours; and (3) those who have passed. Provided that a candidate who does not pass the Intermediate LL.B. Examination within two years of his commencing his course

in Law shall not be eligible for any Prize or Scholarship awarded for proficiency in that Examination; and provided also that a candidate who does not pass the Final LL.B. Examination within three years of passing the Intermediate LL.B. Examination, shall not be eligible for any Prize or Scholarship awarded for proficiency in the subjects of that Examination.

20-1-03 13.—Candidates shall be exempt from attending lectures and passing examinations in any of the prescribed subjects which may have formed part of their course for the degree of Bachelor of Arts, but from no others.

20-1-03 14.—The degree of LL.D. shall not be conferred until after the expiration of two years from the granting of the degree of LL.B.

20-1-03 15.—Candidates for the degree of Doctor of Laws shall be required to pass one examination, which shall be called “the LL.D. Examination,” and which shall be held in Trinity Term in each year.

20-1-03 16.—At the LL.D. Examination candidates shall be examined in (1) Legal History; (2) Roman Law (including a special subject from the Digest to be indicated from time to time); (3) One of the following special subjects:—(a) Common Law, including Mercantile Law, Criminal Law, the Law of Evidence, and Procedure; (b) Equity and Company Law, the Law relating to Bankruptcy, Probate and Divorce, together with procedure in those jurisdictions; (c) the Law of Property, and the Practice of Conveyancing; or (d) Constitutional Law; and (4) International Law (Public and Private).

20-1-03 17.—The candidates who distinguish themselves most highly at the Degree Examinations respectively shall, if of sufficient merit, receive a bronze medal.

20-1-03 18.—The fee for the Degree of Bachelor of Laws shall be £10, and that for the Degree of Doctor of Laws, £20. These fees shall be paid to the Registrar before the examination, and shall not in any case be returned to the candidate.

20-1-03 19.—Candidates who fail to pass the examination for any degree shall be allowed to present themselves for a second examination for the same degree without additional fee; but for any further examination that may be required they shall pay half the ordinary degree fee.

20.—Students at Law and Articled Clerks and other persons 20-1-03 may be admitted to such lectures and examinations in Law as they may desire, and in the event of their passing in the subjects of any course, they shall be entitled to receive certificates to that effect.

## CHAPTER XVII.—FACULTY OF MEDICINE.

1.—The Chancellor and Vice-Chancellor, the Fellows of the 20-1-03 Senate who are legally qualified members of the Medical Profession, and the Professors and Lecturers in the subjects of the Medical Curriculum shall constitute the Faculty of Medicine.

2.—The Dean shall exercise a general superintendence over 20-1-03 the administrative business connected with the Faculty, and it shall be the duty of the Registrar to summon meetings of the Faculty at such times as may be required by the Dean, provided that upon the written requisition of any three members of the Faculty, the Dean, or in his absence the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Faculty unless there be present at least five members. In the absence of the Chancellor and Vice-Chancellor the Dean shall act as Chairman at all meetings of the Faculty, but in his absence the members then present shall elect a Chairman from among themselves. The Chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote. It shall be the duty of the Registrar to attend all meetings and to record the proceedings.

3.—The Faculty shall meet for the purpose of considering 20-1-03 and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations and degrees in Medicine, and such questions as may be referred to it by the Senate.

4.—Class Examinations shall be held during each course of 20-1-03 instruction in each term, unless such term immediately precedes the annual examination in the subject of the course. Students shall not absent themselves from these examinations except upon a medical certificate, and at the end of each course a report of the result, signed by the responsible teacher, shall be presented to the Senate by the Dean. The results of these examinations may be taken into account by the examiners at the annual examinations.

5.—There shall be three Degrees granted in the Faculty of 20-1-03 Medicine, viz. : Doctor of Medicine (M.D.), Bachelor of Medicine (M.B.), and Master of Surgery (Ch.M.).

24-1-05 6.—Candidates for the degree of Bachelor of Medicine (M.B.) shall, before admission to the Medical School, produce evidence either (i.) of having graduated in Arts or in Science; or (ii.) of having completed the First Year in the Faculty of Arts, in accordance with the provisions of Chapter X., Section 7; or (iii.) of having passed the Matriculation Examination for the Faculty of Medicine prescribed in Chapter X., Sections 5 and 6.\*

20-1-03 7.—Candidates for the Degrees of Bachelor of Medicine and Master of Surgery shall attend the following courses of instruction :—

I. In the First Year—

Biology and Practical Biology—Lent and Trinity Terms.  
 Inorganic Chemistry—Lent and Trinity Terms.  
 Practical Chemistry—Trinity and Michaelmas Terms.  
 Physics—Trinity and Michaelmas Terms.  
 Practical Physics—Lent or Michaelmas Term.  
 Human Anatomy—Michaelmas Term.  
 Practical Histology—Michaelmas Term.

II. In the Second Year—

Descriptive Anatomy—Lent and Trinity Terms.  
 Dissections—Lent, Trinity and Michaelmas Terms.  
 Chemistry, Organic—Lent Term.  
 Physiological Chemistry—Lent Term.  
 Experimental Physiology—Trinity Term.  
 Physiology—Trinity and Michaelmas Terms.  
 Applied Logic—Lent Term (20 lectures).

III. In the Third Year—

Physiology—Lent Term.  
 Pharmacology—Trinity Term.  
 Regional Anatomy—Lent and Trinity Terms.  
 Dissections—Lent and Trinity Terms.  
 General Pathology—Michaelmas Term.  
 Practical Pathology—Michaelmas Term.  
 Tutorial Surgery—Michaelmas Term.

IV. In the Fourth Year—

Special Pathology—Lent Term.  
 Surgery—Lent and Trinity Terms.  
 Clinical Surgery—Lent, Trinity and Michaelmas Terms.

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\* See note on page 28.

Operative Surgery—Trinity Term.  
 Medicine—Michaelmas Term.  
 Tutorial Medicine—Michaelmas Term.  
 Midwifery—Michaelmas Term.

V. In the Fifth Year—

Medicine—Lent Term.  
 Tutorial Medicine—Lent Term.  
 Gynæcology (30 lectures)—Lent Term.  
 Clinical Medicine—Lent, Trinity and Michaelmas Terms.  
 Medical Jurisprudence (25 lectures)—Lent and Trinity Terms.  
 Public Health (25 lectures)—Trinity Term.  
 Posology and Prescription Writing (10 lectures)—Michaelmas Term.

They shall also be required to attend during the Fifth Year the following courses:—

Diseases of the Mind (15 lectures), including Cliniques.  
 Diseases of the Eye (15 lectures), including Cliniques.

And two of the following elective courses:—

- (a) Special Bacteriology (60 hours).
- (b) Special Therapeutics (15 lectures).
- (c) Diseases of Children (15 lectures, including Cliniques).
- (d) Diseases of the Skin (15 lectures, including Cliniques).
- (e) Diseases of the Ear, Nose and Throat (15 lectures, including Cliniques).

8.—For the Degrees of M.B. and Ch.M. the examinations shall be as follows:—(1) A First Degree Examination at the end of the First Year in Physics, Inorganic Chemistry, Biology and Anatomy; (2) a Term Examination at the beginning of Trinity Term of the Second Year in Organic Chemistry; (3) a Second Degree Examination at the end of Trinity Term of the Third Year in the entire subjects of Anatomy and Physiology. No candidate shall be admitted to this examination unless (a) he have previously passed the examination in Organic Chemistry and (b) completed the dissection of every part of the body at least once. (4) A Term Examination at the end of Michaelmas Term of the Third Year in General Pathology. (5) A Third or Final Degree Examination at the end of the Fifth Year in Medicine (including Clinical and Tutorial Medicine), Surgery (including Clinical Surgery, Operative Surgery

and Surgical Anatomy, and Tutorial Surgery), Special Pathology, Midwifery, Gynæcology, Public Health and Medical Jurisprudence. No candidate shall be admitted to this examination unless he have previously passed the examination in General Pathology.

20-1-03 9.—Before admission to the Final Examination, candidates shall also be required to present the following certificates at least ten clear days before the date of the examination :—

- (i.) Of Hospital Practice during Michaelmas Term of the Third Year, and during the Fourth and Fifth Years, in accordance with an approved hospital time-table.
- (ii.) Of having been engaged during at least 15 attendances of two hours each in compounding and dispensing drugs in a Laboratory or Dispensary, or other place for compounding medicines approved by the Faculty of Medicine.
- (iii.) Of having acted during not less than nine months as Clinical Clerk in the Medical Wards, not less than six months as Dresser in the Surgical Wards, and not less than three months in each of the following capacities in a recognised hospital, viz., Clinical Clerk and Dresser in the Gynæcological In-patients Department, Student in attendance upon the Surgical Out-patients Department, Student in attendance upon the Medical Out-patients Department, Student in attendance upon the Gynæcological Out-patients Department.
- (iv.) Of attendance at Post-mortem Examinations and Demonstrations during at least one term after passing the Second Degree Examination.
- (v.) Of attendance on at least 12 cases of childbirth, under such supervision as may be approved by the Faculty of Medicine, after having attended the course of lectures upon Midwifery.
- (vi.) Of proficiency in Vaccination, signed by a legally qualified Medical Practitioner.
- (vii.) Of proficiency in the Administration of Anæsthetics from a recognised hospital.



- (viii.) Of regular attendance and attention signed by the Lecturers in (a) Diseases of the Mind, (b) Diseases of the Eye, and (c) the two Elective Courses chosen by the Student.

10.—No candidate shall be admitted to the Final Examination until he shall have produced evidence of having completed his twenty-first year. Each candidate shall also furnish a certificate of “good fame and character,” signed by two competent persons. 20-1-03

11.—At each examination candidates shall be required to give proof of their knowledge by written answers to the questions set, to be followed by a practical or a *visd voce* examination in all subjects whatsoever. 20-1-03

12.—Students who fail to pass, or neglect to attend their examinations in any subject or subjects, may be required by the Faculty, on the report of the Examiners, to attend again the Courses of Instruction or Hospital Practice in such subject or subjects before again presenting themselves for examination. 20-1-03

13.—Candidates who have passed all the examinations to the satisfaction of the Examiners shall be recommended to the Senate for admission to the Degree of Bachelor of Medicine, and to the Degree of Master of Surgery if they so elect. 20-1-03

14.—Honours at graduation shall depend upon the proficiency shown in the examinations, in accordance with regulations adopted by the Senate from time to time, and the candidate who shall have been most distinguished shall receive a bronze medal, provided that he shall have obtained First Class Honours. 20-1-03

15.—Accredited certificates of attendance on courses of instruction from other Universities and Schools of Medicine recognised by the University of Sydney may, on the report of the Dean, be accepted by the Senate as proof of the attendance on courses of instruction *pro tanto* required by these By-laws. Provided always that no person shall be recommended to the Senate for admission to the Degrees of Bachelor of Medicine or of Master of Surgery by examination unless he shall present certificates of having attended within the University of Sydney, during each of at least nine Terms, not less than two courses of instruction in subjects included in the Medical Curriculum of the University. In all such cases a Degree in Arts or in Science, or some certificate of general education satisfactory to the Senate, will be 20-1-03

required. Every candidate making application under this By-law must present a certificate of good fame and character, signed by two competent persons.

20-1-03 16.—Bachelors of Medicine and Masters of Surgery of this University shall not possess any right to assume the title of Doctor of Medicine.

20-1-03 17.—The Degree of Doctor of Medicine shall not be conferred until after the expiration of two Academic years from the granting of the Degree of Bachelor of Medicine.

20-1-03 18.—Candidates for the Degree of Doctor of Medicine must produce evidence that, after having obtained the Degree of Bachelor of Medicine, they have spent at least two years in Medical or Surgical practice, or that they have been engaged in a manner approved by the Faculty for a like period in the study of any subject or subjects included in the Medical Curriculum of the University of Sydney.

20-1-03 19.—Candidates for the Degree of Doctor of Medicine shall be required to pass an examination conducted by means of set papers and by *visd voce* interrogations in any one of the following departments of Medical Science and Practice, viz., (i.) Medicine, (ii.) Medical Jurisprudence and Public Health, (iii.) Surgery, (iv.) Midwifery and Gynæcology; or in any one of the scientific subjects included in the Medical Curriculum. They shall further be required to present, and if called upon to defend, to the satisfaction of the Examiners, a previously unpublished thesis on some subject included in the Medical Curriculum of the University. Three printed or type written copies of the thesis on paper eight inches wide and ten inches deep must be transmitted to the Registrar at least two months before the date fixed for the examination.

20-1-03 20.—Bronze medals may be awarded for special excellence or originality of the theses presented.

20-1-03 21.—The Degree of Master of Surgery shall not be conferred on any person who has not already been admitted a Bachelor of Medicine.

20-1-03 22.—The fees for the Degrees of Doctor of Medicine, Bachelor of Medicine, and Master of Surgery shall be ten pounds respectively. The fees shall be paid to the Registrar before the examination, and shall not in any case be returned to the candidate.

23.—Candidates who fail to pass the examination for any <sup>8-11-08</sup> Degree shall be required upon presenting themselves for any further examination for the same Degree to pay a fee of five pounds.

24.—Undergraduates in Medicine who have passed the <sup>20-1-08</sup> First and Second Degree Examinations in Medicine, and the Term Examination in Organic Chemistry, and have, in addition, attended an advanced course of and passed an advanced examination in accordance with the requirements of the Faculty of Science in one of the following divisions, viz.—(a) Chemistry, (b) Physics, (c) Biology, (d) Geology—may, on the report of the Dean of the Faculty of Science, be admitted by the Senate to the Degree of Bachelor of Science.

CHAPTER XVIII.—FACULTY OF SCIENCE.

1.—The Faculty of Science shall consist of the Professors of <sup>24-1-05</sup> Biology, Chemistry, Engineering, Geology, Mathematics, Physics and Physiology, and other Professors and independent Lecturers in the subjects required for the Degrees in Science.

2.—The Dean shall exercise a general superintendence over <sup>24-1-05</sup> the administrative business connected with the Faculty, and it shall be the duty of the Registrar to summon meetings of the Faculty at such times as may be required by the Dean, provided that upon the written requisition of any three members of the Faculty, the Dean, or in his absence the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Faculty unless there be present at least five members. The Dean shall act as Chairman at all meetings of the Faculty, but in his absence the members then present shall elect a Chairman from amongst themselves. The Chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote. It shall be the duty of the Registrar to attend all meetings and record the proceedings.

3.—The Faculty shall meet for the purpose of considering <sup>24-1-05</sup> and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations and degrees in Science, and such questions as may be referred to it by the Senate.

4.—There shall be four degrees in Science, viz.: Bachelor of <sup>24-1-05</sup> Science (B.Sc.), Doctor of Science (D.Sc.), Bachelor of Engineering (B.E.), and Master of Engineering (M.E.).

- 24-1-05 † 5.—Candidates for the degree of Bachelor of Science (B.Sc.) shall, before admission to the curriculum in Science, produce evidence either (i.) of having graduated in Arts; or (ii.) of having completed the First Year in the Faculty of Arts in accordance with the provisions of Chapter X., Section 7; or (iii.) of having passed the Matriculation Examination for the Faculty of Science, prescribed in Chapter X., Sections 5 and 6.\*
- 24-1-05 † 6.—Candidates for the degree of Bachelor of Science shall, during the First Year, attend the courses of instruction upon and pass the examinations in the following subjects:—
- I. Chemistry I., including laboratory practice.
  - II. Physics I., including laboratory practice.
  - III. and IV. Two of the following:—
    - Biology I., including laboratory practice.
    - Geology I., „ „ „
    - Mathematics I.
- 24-1-05 † 7.—Candidates for the degree of Bachelor of Science shall, during the Second Year, attend the courses of instruction upon and pass the examinations in three of the following subjects:—
- I. Biology II., including laboratory practice.
  - II. Chemistry II., „ „ „
  - III. Geology II., „ „ „
  - V. Mathematics II.
  - IV. Physics II., including laboratory practice.
  - VI. Physiology I., „ „ „
- 24-1-05 † 8. Candidates for the degree of Bachelor of Science shall, during the Third Year, attend the courses of instruction upon, and pass the examinations in two of the following subjects:—
- I. Biology III., including laboratory practice.
  - II. Chemistry III., „ „ „
  - III. Geology III., „ „ „
  - IV. Mathematics.
  - V. Physics III., including laboratory practice.
  - VI. Physiology III., „ „ „
- 24-1-05 † 9. Honours at graduation in any subject of the Science, curriculum shall be awarded only to such students as have passed through courses I., II., and III. of such subject.

\* See note on page 25. † As revised in connection with the amended curriculum which is to come into operation in March, 1907. See page 71 for by-laws lately repealed, which are still applicable to students entering the University in March, 1906.

10.—The candidate for Honours who shall have most distinguished himself at the Bachelor of Science examination shall, if he possess sufficient merit, receive a bronze medal. 24-1-05

11.—The examination for the degree of Bachelor of Science shall take place once a year. 24-1-05

12.—No candidate shall be admitted to this examination unless he produce a certificate from the Dean of the Faculty of Science that he is of nine Terms' standing, and that he has passed all the examinations required since his admission to the University. 24-1-05

13.—The fee for the degree of Bachelor of Science shall be three pounds. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him. For any re-examination for the same degree he shall pay a fee of two pounds. 24-1-05

14.—The Annual Examinations shall be conducted in the first instance by means of printed papers, practical exercises, and reference to specimens when necessary; and at the termination of such examinations each candidate shall undergo a *vivâ voce* examination if the Examiners think fit. At least one written Class Examination shall be held during each Term of the first two years except in the mathematical subjects. Students shall not absent themselves from these examinations except upon a medical certificate. Students who fail to pass the Class Examinations may, at the discretion of the Board of Examiners, be refused admission to the Annual Examinations. 24-1-05

15.—The Examination for the degree of Doctor of Science (D.Sc.) shall take place once a year. 24-1-05

16.—Every candidate for the degree of Doctor of Science must have held the degree of Bachelor of Science for at least two years. He shall be required to pass an examination in one of the following branches of Science:—Botany, Chemistry, Geology, Mathematics, Palæontology, Physics, Physiology, Zoology. He shall also be required to present, and if called upon, to defend, a thesis not previously published, embodying the results of an original investigation in the branch of science selected. Five printed or type-written copies of this thesis must be in the hands of the Registrar at least two months before the date fixed for the examination. The candidate may also present, for the 24-1-05

consideration of the examiners, any original contribution or contributions to the branch of Science selected, which he may desire to submit in support of his candidature.

24-1-05 17.—Any candidate for this degree whose qualifications shall be of sufficient merit shall receive a bronze medal.

24-1-05 18.—The fee for the degree of Doctor of Science shall be ten pounds. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him, but he shall be admissible to one further examination for the same degree without the payment of an additional fee. For each subsequent examination that may be required he shall pay the sum of five pounds.

#### DEPARTMENT OF ENGINEERING.

24-1-05 19. The degree of Bachelor of Engineering shall be given in the three branches of (i.) Civil Engineering, (ii.) Mining and Metallurgy, (iii.) Mechanical and Electrical Engineering.

24-1-05 20.—Candidates for the degree of Bachelor of Engineering shall, before admission to the curriculum in Engineering, produce evidence either (i.) of having graduated in Arts or in Science; or (ii.) of having completed the first year in the Faculty of Arts in accordance with the provisions of Chapter X, Section 7, or (iii.) of having passed the Matriculation Examination for the Department of Engineering prescribed in Chapter X, Sections 5 and 6\*.

24-1-05 21.—Candidates for the degree of Bachelor of Engineering in any branch shall, during the First Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:—

- I. Chemistry I., including laboratory practice.
- II. Descriptive Geometry.
- III. Mathematics.
- IV. Applied Mechanics, including laboratory practice.
- V. Physics I., including laboratory practice.
- VI. Engineering Drawing.

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\* See note on page 28.

## CIVIL ENGINEERING.

22.—Candidates for the degree of Bachelor of Engineering 24-1-05 in Civil Engineering shall, during the Second Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :—

- I. Mathematics.
- II. Mechanical Engineering I., including laboratory practice.
- III. Civil Engineering I.
- IV. Physics II., including laboratory practice.
- V. Surveying I., including field work.
- VI. Engineering Drawing and Design.

23.—Candidates for the degree of Bachelor of Engineering 24-1-05 in Civil Engineering shall, during the Third Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :—

- I. Civil Engineering II., including laboratory practice.
- II. Civil Engineering III., including laboratory practice.
- III. Surveying II., including field work.
- IV. Architecture and Building Construction.
- V. Geology I., including laboratory practice.
- VI. Engineering Drawing and Design.

Every candidate is required to prepare and submit to the Board of Examiners an original thesis or set of working drawings and specifications for machinery or works.

## MINING AND METALLURGY.

24.—Candidates for the degree of Bachelor of Engineering 24-1-05 in Mining and Metallurgy shall, during the Second Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :—

- I. Mechanical Engineering I., A, including laboratory practice.
- II. Physics II., including laboratory practice.
- III. Geology I., including laboratory practice.
- IV. Civil Engineering I.
- V. Chemistry.
- VI. Engineering Drawing and Design.

24-1-05

25.—Candidates for the degree of Bachelor of Engineering in Mining and Metallurgy shall, during the Third Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :—

- I. Geology II., including laboratory practice.
- II. Mineralogy, including laboratory practice.
- III. Civil Engineering III., A, including laboratory practice.
- IV. Surveying I. and III., including field work.
- V. Building Construction.
- VI. Mechanical Engineering II., A, including laboratory practice.
- VII. Electrical Engineering I., A, including laboratory practice.
- VIII. Practical Metallurgy and Assaying I.
- IX. Engineering Drawing and Design.

24-1-05

26.—Candidates for the degree of Bachelor of Engineering in Mining and Metallurgy shall, during the Fourth Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :—

- I. Mining.
- II. Metallurgy.
- III. Practical Metallurgy and Assaying II.
- IV. Mining and Metallurgical Design.

Every candidate is required to prepare and submit to the Board of Examiners an original thesis or set of working drawings and specifications for machinery or works.

#### MECHANICAL AND ELECTRICAL ENGINEERING.

24-1-05

27.—Candidates for the degree of Bachelor of Engineering in Mechanical and Electrical Engineering shall, during the Second Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :—

- I. Mechanical Engineering I., including laboratory practice.
- II. Mathematics.
- III. Physics II., including laboratory practice.
- IV. Surveying I., including field work.



- V. Civil Engineering I.
- VI. Engineering Drawing and Design.
- VII. Mechanical Workshop Practice.

28.—Candidates for the degree of Bachelor of Engineering <sup>24-1-05</sup> in Mechanical and Electrical Engineering shall, during the Third Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:—

- I. Mathematics.
- II. Mechanical Engineering II., including laboratory practice.
- III. Electrical Engineering I., including laboratory practice.
- IV. Civil Engineering II., A and III., A, including laboratory practice.
- V. Practical Chemistry.
- VI. Engineering Drawing and Design.

The annual examination of Third Year Students shall be held at the end of Trinity Term. Before entering upon his Fourth Year each student shall be required to present a certificate showing that he has had six months' practical workshop experience in some approved engineering works.

29.—Candidates for the degree of Bachelor of Engineering <sup>24-1-05</sup> in Mechanical and Electrical Engineering shall, during the Fourth Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:—

- I. Electrical Engineering II., including laboratory practice.
- II. Mechanical Engineering III., including laboratory practice.
- III. Mechanical and Electrical Design.

Every candidate is required to prepare and submit to the Board of Examiners an original thesis or set of working drawings and specifications for machinery or works.

30.—A candidate shall not be admitted to the Degree of <sup>8-10-89</sup> Bachelor of Engineering unless he shall produce a certificate from the Dean of the Faculty of Science that he is of nine Terms' standing, that he has passed all the examinations, and has satisfactorily complied with all the other conditions required of him since his admission to the University.

11-9-93 31.—The candidate who shall most distinguish himself in the Honour Division of the Third Annual Examination shall, if of sufficient merit, receive a bronze medal.

8-10-89 32.—The examination for the Degree of Master of Engineering shall take place once a year. This degree shall not be conferred until after the expiration of three Academic years from the granting of the B.E. Degree.

9-2-92 33.—Every candidate shall be required to produce to the Board of Examiners satisfactory certificates or other evidence of having been engaged during three years in the practice of one of the four branches of Engineering specified in By-law 31, one year at least of which must have been spent in acquiring a practical knowledge of the branch or branches selected, under the direction of an Engineer or Architect practising the branch or branches in which he wishes to be examined.

13-12-92 34.—Candidates for the Degree of Master of Engineering shall have taken Honours in the Professional subjects of the examination for the Degree of B.E.; or must attain the standard for Honours at some subsequent B.E. Examination, and shall be required to pass examinations in one of the following divisions or branches:—

I. Engineering Construction in Iron, Steel, Timber, Masonry and Concrete.

II. Hydraulic and Sanitary Engineering.

III. Railway Engineering, including railway location, Permanent Way, Locomotives and Rolling Stock, and Railway Appliances.

IV. Architecture, Building Construction and Sanitation.

V. Mechanical Engineering and Machine Construction.

VI. Mining and Metallurgy.

VII. Electrical Engineering.

Candidates must give at least twelve months' notice of their intention to proceed to the Master's Degree.

Candidates shall be required to prepare a complete set of working drawings and specifications of such works or machinery as the Examiners may require in the particular division or branch of Engineering selected.

8-10-89 35.—The diplomas for the Degrees of Bachelor and Master of Engineering shall specify the branch or branches of Engineering for which they are granted.

36.—The fees for the Degrees of Bachelor and Master of Engineering shall be ten pounds respectively; no candidate shall be admitted to either examination unless he shall have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him, but he shall be admissible to one subsequent examination for the same Degree without the payment of an additional fee.

37.—Graduates in Engineering in any branch may, upon passing the Degree Examination in any other branch or branches, and producing satisfactory evidence of practical work therein, receive a certificate for such additional branch or branches.

38.—The fee for such additional examination for the Degrees of Bachelor and of Master of Engineering shall be ten pounds.

39.—The candidate who shall most distinguish himself in the examination for the Degree of Master of Engineering shall, if of sufficient merit, receive a bronze medal.

#### CHAPTER XIX.—ADMISSION *AD EUNDEM GRADUM*.

1.—Admission *ad eundem gradum* in the University may, at the discretion of the Senate, be granted without examination to Graduates of the following approved Universities—that is to say, the Universities of Oxford, Cambridge, London and Durham, the Victoria University, the University of St. Andrew's, Edinburgh, Glasgow, Aberdeen and Dublin, the Queen's University of Ireland, and the Royal University of Ireland, lately established in its place; and the Universities of Melbourne, New Zealand and Adelaide; and may also be granted to Graduates of such other Universities as the Senate may from time to time determine; provided always that they shall give to the Registrar, to be submitted to the Senate, sufficient evidence of their alleged Degrees respectively, and of their good fame and character. Upon the approval of his application each candidate shall pay to the Registrar a fee of two pounds for the entry of his name on the University books, in addition to the prescribed fee for his Degree.

#### CHAPTER XX.—REGISTER OF GRADUATES.

1.—A Register of Graduates of the University shall be kept by the Registrar in such manner as the Senate shall from time to time direct.

2.—A Register of the Members of Convocation shall be kept by the Registrar in such manner as the Senate shall from time to

time direct, and such Register shall be conclusive evidence that any person whose name shall appear thereon at the time of his claiming a vote at a Convocation is so entitled to vote.

CHAPTER XXI.—SUBSTITUTES FOR OFFICERS.

- 5-7-87 1.—Any act required by the By-laws to be performed by any officer of the University may, during the absence or other incapacity of such officer, unless otherwise provided, be performed by a person appointed by the Senate to act in his place.

CHAPTER XXII.—ACADEMIC COSTUME.

- 12-9-92 1.—The Academic Costume shall be for—

The Chancellor and Vice-Chancellor—a robe and cap similar to those worn by the Chancellor of the University of Oxford. In undress, the silk gown worn by other members of the Senate, black velvet cap and gold tassel.

A Member of the Senate—the habit of his Degree, or a black silk gown of the description worn by Graduates holding the Degree of Doctor, with tippet of scarlet cloth, edged with white fur, and lined with blue silk, black velvet trencher cap.

Doctor of Laws, Medicine or Science—the gown worn by Graduates holding the Degree of Doctor in the Universities of Oxford or Cambridge, black cloth trencher cap.

Doctor of Laws—hood of scarlet cloth, lined with blue silk.

Doctor of Medicine—hood of scarlet cloth, lined with purple silk.

Doctor of Science—hood of scarlet cloth, lined with amber-coloured satin.

Master of Arts—the ordinary Master's gown of Oxford or Cambridge, of silk or bombazine with black silk hood lined with blue silk, black cloth trencher cap.

Master of Surgery—the ordinary Master's gown of Oxford or Cambridge, of silk or bombazine, with hood of scarlet cloth lined with French grey, black cloth trencher cap.

Master of Engineering—a Master of Arts gown, with black silk hood, lined with light maroon-coloured silk, black cloth trencher cap.

Bachelor of Laws or Medicine—the black gown worn by civilians in Oxford or Cambridge holding Degrees, black cloth trencher cap.

Bachelor of Laws—hood of black silk, edged with blue silk.

Bachelor of Medicine—hood of black silk, edged with purple silk.

Bachelor of Arts, Science or Engineering—a plain black stuff gown, black cloth trencher cap.

Bachelor of Arts—hood similar to that worn by the B.A. at Cambridge.

Bachelor of Science—hood of black stuff, edged with amber-coloured silk.

Bachelor of Engineering—hood of black stuff, edged with light maroon-coloured silk.

Licentiate in Dental Surgery—a gown similar to that worn by Bachelors of Arts, Science and Engineering, black cloth trencher cap, hood of black stuff, edged with cream-coloured silk.

An Officer not being a Graduate—a black silk gown of the description worn by civilians not holding Degrees, black cloth trencher cap.

Undergraduate—a plain black stuff gown, black cloth trencher cap.

Scholar—plain black stuff gown, with a velvet bar and shoulder strap, black cloth trencher cap.

2.—Members of the University shall on all public occasions, when convened for Academic purposes, appear in their Academic costume.

3.—The Undergraduates shall appear in Academic costume when attending lectures, and on all public occasions in the University; and, whenever they meet the Fellows, Professors, or other Superior Officers of the University, shall respectfully salute them. Provided that students in any Faculty shall be permitted, if deemed expedient by the Faculty, to wear at certain courses of instruction, in lieu of the ordinary Academic dress, a distinguishing badge to be prescribed by such Faculty.

## CHAPTER XXIII.—PUBLIC EXAMINATIONS.

- 5-7-87 1.—Two public examinations shall be held every year, the one to be called the Junior Public Examination and the other to be called the Senior Public Examination, and shall be open to all candidates, male or female, who may present themselves.
- 5-7-87 2.—The Public Examinations shall be held at such times and at such places as the Senate may from time to time appoint.
- 5-7-87 3.—The subjects of the Junior Public Examination shall be the English Language and Literature, History, Geography, the Latin, Greek, French and German Languages, Arithmetic, Algebra, Geometry, Natural Science, and such other branches of learning as the Senate may from time to time determine.
- 5-7-87 4.—The subjects of the Senior Public Examination shall be those mentioned in the foregoing section, together with higher Mathematics, Drawing, Music, Natural Philosophy, and such other branches of learning as the Senate may from time to time determine.
- 5-7-87 5.—Every candidate who shall pass either of these examinations, or such portions of either of them as may be required by the Rules or Orders of the Senate in force for the time being, shall receive a certificate to that effect, specifying the subjects in which he shall have passed, signed by the Dean of the Faculty of Arts and by the Registrar.
- 5-7-87 6.—No person shall be admitted to either of the Public Examinations until he shall have paid such fees as may be required by the Rules or Orders of the Senate in force for the time being.
- 18-7-83 7.—The Professors and Assistant Professors not engaged in tuition except publicly within the University, together with such other persons as the Senate may from time to time appoint, shall form a Board for conducting the Public Examinations; and of this Board the Chairman shall be elected at its first meeting in the year.
- 27-9-92 8.—At the conclusion of each examination the Board shall publish the result and transmit to the Senate a copy of it, signed by the Chairman and at least one other member.
- 5-7-87 9.—Subject to these By-laws, the Public Examinations shall be conducted according to such Rules or Orders as the Senate may from time to time establish.

## CHAPTER XXIV.—EVENING LECTURES.\*

1.—Courses of Evening Lectures, embracing all the subjects<sup>30-7-94</sup> necessary for the Degree of Bachelor of Arts, shall be given at such times and in such order as the Senate may from time to time direct.

2.—Any person desirous of attending a course of Evening<sup>30-7-94</sup> Lectures may be allowed to do so upon payment of such fees as the Senate may from time to time direct.

3.—Students who desire to qualify themselves for gradua-<sup>24-1-06</sup> tion by attendance upon Evening Lectures shall be required to attend the courses of instruction and pass the examinations prescribed in Chapter XV. for candidates for the degree of Bachelor of Arts, subject to the following provisons.

- (a) Evening students shall be allowed to distribute the lectures and examinations prescribed for First and Second Year Students over a longer period, taking the individual courses of instruction and corresponding examinations in any order they please. Provided that course I. in any subject must be taken before course II., except with the permission of the Professor of such subject.
- (b) The examinations in the whole of the subjects prescribed for students of the Third Year must be taken concurrently.
- (c) Students must have completed the examinations prescribed for First and Second Year Students one Academic year before attending the Third Year Examination.
- (d) An evening student may attend the courses prescribed for First Year Students with a view to graduation before he has completely passed the prescribed Matriculation Examination, but the attendance of such unmatriculated student on the courses in Latin, French or Mathematics shall not be allowed to count towards graduation unless he has previously passed the appropriate part of the matriculation or some equivalent examination.
- (e) No evening student shall be admitted to the courses prescribed for Second Year Students until he has

\* As revised in connection with the amended curriculum which is to come into operation in March, 1907. See page 71 for by-laws lately repealed, which are still applicable to students entering the University in March, 1906.

matriculated, nor to the degree of Bachelor of Arts until he is a matriculated student of nine terms standing.

- 80-7-94 4.—In all cases not provided for in the preceding By-laws of this Chapter, Evening Students shall be subject to the same By-laws, Rules and Regulations as other students.

CHAPTER XXV.—UNIVERSITY EXTENSION.

1.—There shall be a Board, consisting of not more than eighteen members, of whom four at least shall be members of the Senate, and four at least shall be members of the Teaching Staff, and not less than two shall be persons not being members of the Senate or of the Teaching Staff. The Board shall be appointed annually by the Senate, at its monthly meeting in November, and shall be held to be duly constituted upon the appointment of twelve persons to be members thereof, and the Senate may fill vacancies and appoint additional members from time to time if it shall think fit during the year, but so that the total number of members of the Board shall not exceed eighteen at any time. Membership of the Board shall continue from the time of appointment until the next annual appointment of the Board, when all memberships shall lapse, but all retiring members shall be eligible for re-election.

- 12-9-92 2.—The Board shall at its first meeting after its appointment in each year elect a Chairman for the year, and may recommend to the Senate the appointment of a Secretary, the tenure of whose office and the amount of whose salary (if any) shall be determined by the Senate. The Chairman shall convene meetings of the Board, and three members shall form a quorum.

- 12-9-92 3.—All action taken by the Board shall be subject to the By-laws, and to any directions which may be given by the Senate.

- 12-9-92 4.—The Board shall from time to time recommend to the Senate the names of certain persons to be authorised for employment as University Extension Lecturers, and the Senate shall at its discretion authorise the employment of such persons to deliver lectures under the direction of the Board.

- 12-9-92 5.—The Board may appoint any person whose employment as Lecturers has been authorised by the Senate to deliver such courses of lectures, and to hold such classes and examinations on such subjects, and at such times and places as the Board may see fit.



6.—The Board shall determine the tenure of office of the <sup>12-9-92</sup> Lecturers, the duties to be performed by them, the fees and charges to be paid for the lectures, classes and examinations, and the mode and time of payment of the fees and charges.

7.—The payments to be made to the Lecturers shall be <sup>12-9-92</sup> determined by the Board in accordance with regulations as to the rate of payment to be laid down by the Senate.

8.—The Board shall make all other arrangements requisite <sup>12-9-92</sup> for the delivery of lectures and the holding of classes and examinations, and may award such certificates as it shall think fit.

9.—The fees received, together with any Government grant, <sup>12-9-92</sup> donations, and such sums as may from time to time be assigned for the purpose by the Senate, shall be the fund for the payment of Lecturers and other expenses. The fund shall be deposited in a bank in the name of the University Extension Board, and all payments from the fund shall be made by cheques signed by the Chairman or two other members of the Board and by the Secretary.

10.—The Board shall, in the month of December in each <sup>12-9-92</sup> year, lay before the Senate a report of its proceedings of that year, with a statement of its finances.

#### CHAPTER XXVI.—TENURE OF OFFICE OF LECTURERS.

1.—All appointments of Public Teachers in the schools of <sup>29-6-91</sup> the University, other than Professors, shall be terminable by a notice of not less than six calendar months, which may be given by the Senate at any time, but which, if given by the Teacher, must expire on the 31st December. This By-law shall not apply to any case in which the Senate shall direct that the appointment shall be for a limited period.

2.—All independent Lecturers or Public Teachers other than <sup>7-1-02</sup> Professors and Assistant Lecturers and Demonstrators shall, unless specifically appointed for a shorter term, hold office for a period not exceeding seven years, which shall terminate on December 31st next preceding the expiration of seven years from the date of appointment. During such period the appointment shall be terminable at six months' notice, as provided in Section 1 of this chapter, and at the expiration of such period the appointment shall terminate; but the holder shall be eligible for re-appointment.

## CHAPTER XXVII.—FINANCE.

- 11-6-93 1.—The general supervision of the financial affairs of the University shall, subject to the direction and control of the Senate, be entrusted to a Finance Committee, consisting of the Chancellor, the Vice-Chancellor, and four elected Fellows of the Senate, of which number three shall constitute a quorum.
- 7-6-92 2.—The elected members of the Committee shall be chosen annually by the Senate, and shall remain in office until their successors shall have been appointed. All casual vacancies shall be notified by the Registrar at the next meeting of the Senate, and shall be filled by the Senate as soon thereafter as conveniently may be.
- 7-6-92 3.—The Finance Committee shall meet once a month, and at such other times as the Senate shall have directed, or when it shall be summoned by the Registrar under the direction of the Chancellor or Vice-Chancellor.
- 7-6-92 4.—The Registrar shall attend all meetings of the Committee, and shall keep due records and minutes of their proceedings, and shall act generally as executive officer of the Committee. And the University Solicitor may be required by the Committee to attend any of its meetings with reference to the investments or other matters requiring legal advice or assistance.
- 7-6-92 5.—It shall be the duty of the Finance Committee to submit to the Senate, towards the end of each Academic year, an estimate of the expected revenue for the next ensuing year, together with a statement of the proposed expenditure as already authorised by the Senate or apprehended to be necessary, such estimates and expenditure to be arranged under as many heads as shall be convenient. And the Senate shall, as soon after as may be, consider such estimates and pass votes for expenditure during such coming year, which votes shall not be exceeded unless upon special grounds and on the report of the Finance Committee that sufficient funds are available for the expenditure.
- 7-6-92 6.—The Finance Committee shall, as soon as practicable after the close of each Academic year, submit to the Senate a report and a duly audited statement of the accounts and transactions during the past year.
- 7-6-92 7.—The Registrar and Accountant shall present to the Finance Committee in each month a statement showing, with such details and particulars as the Committee shall have required,

the full state and condition of the University's financial affairs at that time, and the Registrar shall then inform the Committee of all financial matters proper to be considered at that meeting, and shall produce the Bank Pass Books of the University made up the preceding day.

8.—The Finance Committee shall once in each month present <sup>7-6-92</sup> a report setting forth a pay sheet for the disbursements required for that or the next month, as occasion may arise, in accordance with the general estimates and votes for expenditure for the current year, or with any specific order previously made by the Senate, and also setting forth any other demands which the Committee shall, after enquiry and examination, see reason to submit for allowance and payment in that month.

9.—The Finance Committee shall also in each month present <sup>7-6-92</sup> to the Senate a report showing the general state and condition of the University's financial affairs, and setting forth all receipts and disbursements since the last preceding report of like character, and shall therein distinguish all loans and repayment of loans from other disbursements and receipts, and the Committee shall, at such meeting and other meetings, promptly report any default in the payment of interest on any investment or in the payment of any principal money which may be due to the University.

10.—No expenditure of funds of the University, otherwise <sup>7-6-92</sup> than by way of investment on loan upon the authority of the Finance Committee, with the approval of the Chancellor or Vice-Chancellor, shall be made unless the same shall have been authorised by the Senate.

11.—All moneys received on behalf of the University shall <sup>7-6-92</sup> be forthwith paid by the Registrar to the credit of the University at its Bank of deposit, on General or Special Account, as the case may require.

12.—All disbursements of money belonging to the University, <sup>20-9-98</sup> whether the same shall be by way of payment or of investment, shall be by cheque on the University Bank, signed by two members of the Senate and countersigned by the Registrar.

13.—The investment of moneys shall be confined within the <sup>20-9-98</sup> following classes of securities :—

- (a) Deposit with the Government of the State at interest, if allowed by the Government for the time being.

- (b) Purchase of Debentures or Inscribed Stock, or Treasury Bills, or other form of security issued by the Government of any of the Australian States.
- (c) Debentures or other Loan issues of Municipal or other public bodies within this State, having statutory powers to borrow moneys within limits then open, or of any incorporated body or society having such authority and within such limits.
- (d) Mortgages of Land and Premises held in fee simple to the extent of two-thirds the estimated value, with sufficient insurance on destructible improvements or articles included in such estimates.
- (e) Mortgages of Leasehold Lands and Premises held under leases which will not have less than thirty years to run at the date of expiration of such mortgages, to an extent not exceeding three-fifths of like approved estimates, and with like insurance on destructible improvements or articles.
- (f) Deposits at interest in any Bank of the State.
- (g) Purchase of Freehold or Leasehold Lands, with or without improvements, provided that no investment under this sub-section shall be made without the special authority after special notice of a meeting of the Senate.

#### CHAPTER XXVIII.—DEPARTMENT OF DENTAL STUDIES.

1.—The Chancellor and Vice-Chancellor, the Dean of the Faculty of Medicine, the Medical Members of the Senate, the Professors and Lecturers in the subjects of the Dental Curriculum, and a representative elected from among themselves by the Honorary Dental Officers of the Dental Hospital of Sydney shall constitute the Board of Dental Studies.

2.—The Dean of the Faculty of Medicine shall exercise a general superintendence over the administrative business connected with the Board, and it shall be the duty of the Registrar to summon meetings of the Board at such times as may be required by the Dean, provided that upon the written requisition of any three Members of the Board the Dean, or in his absence, the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Board unless there shall be present at least five members. In the absence of the

Chancellor and Vice-Chancellor, the Dean of the Faculty shall preside at meetings of the Board, but in his absence the members then present shall elect a Chairman from amongst themselves. The Chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote. It shall be the duty of the Registrar to attend all meetings of the Board and to record its proceedings.

3.—The Board shall meet for the purpose of considering and reporting to the Senate upon such subjects as have relation to the Studies, Lectures and Examinations in Dentistry, and upon such questions as may be referred to it by the Senate.

4.—The Degree of Bachelor in Dental Surgery shall be granted after examination in the subjects of the Curriculum in Dentistry.

5.—Candidates for the Degree of Bachelor in Dental Surgery, before commencing their studies, shall pass the Entrance Examination for the Faculties of Medicine and Science, or shall produce satisfactory evidence of having passed an equivalent examination elsewhere.

6.—Candidates for the Degree of Bachelor in Dental Surgery shall, during the First Year, attend the following courses of instruction :—

1. Physics and Practical Physics.
2. Chemistry, Introductory and Metals.
3. Practical Chemistry, and Metallurgy as applied to Dentistry.
4. Descriptive Anatomy, including Special Anatomy of the Teeth.
5. Dissection (two terms).
6. Practical Histology (Michaelmas).
7. Mechanical Dentistry.

7.—Candidates for the Degree of Bachelor in Dental Surgery shall, during the Second Year, attend the following courses of instruction :—

1. Physiology (Trinity and Michaelmas, two terms).
2. Physiology, Practical (Lent and Trinity, two terms).

3. Surgical Dentistry.
4. Mechanical Dentistry.
5. Dissections (equivalent to two terms).
6. Practice in Surgical and Mechanical Dentistry at the Dental Hospital.
7. Regional Anatomy.

8.—Candidates for the Degree of Bachelor in Dental Surgery shall, during the Third Year, attend the following courses of instruction :—

1. Physiology (one term, Lent).
2. Surgical Dentistry.
3. Mechanical Dentistry.
4. Materia Medica and Therapeutics.
5. Pathology and Bacteriology.
6. Practical Pathology and Bacteriology.
7. Practice in Surgical and Mechanical Dentistry at the Dental Hospital.

9.—Candidates for the Degree of Bachelor in Dental Surgery shall, during the Fourth Year, attend the following courses of instruction :—

1. Surgery and Special Dental Surgery.
2. Anæsthetics.
3. Practice in Surgical and Mechanical Dentistry at the Dental Hospital.
4. Special Clinical Courses.
  - (a) Medicine.
  - (b) Surgery.

10.—Candidates for the Degree of Bachelor in Dentistry shall be required to pass the following examinations :—

At the end of the First Year, an examination in *Physics* and *Chemistry*.

At the end of Trinity Term of the Second Year, an examination in *Anatomy*.

At the end of Trinity Term of the Third Year, an examination in *Physiology*.

At the end of the Third Year, an examination in *Surgical Dentistry, Mechanical Dentistry, Materia Medica and Therapeutics, Pathology and Bacteriology*.

At the end of the Fourth Year, an examination in *Surgical Dentistry, Mechanical Dentistry, Surgery*.

11.—The fee for the Degree of Bachelor in Dental Surgery shall be ten pounds. This fee shall be paid to the Registrar before the final examination, and shall not, in any case, be returned to the Candidate. A Candidate who fails to pass the examination may be allowed to present himself for a further examination upon payment of the sum of five pounds.

12.—At each Degree Examination the Candidates shall be required to give proof of their knowledge by written answers to the questions set, and also by a practical or *vivâ voce* examination in all the subjects.

13.—Before admission to the final Degree Examination, each Candidate shall furnish evidence of having completed his twenty-first year, and also a certificate of good fame and character, to the satisfaction of the Senate.

14.—Candidates who have passed all the examinations to the satisfaction of the Board may be recommended to the Senate for the Degree of Bachelor in Dental Surgery.

15.—Accredited certificates of attendance on courses of instruction from other Universities or Schools of Medicine or of Dentistry may, on the report of the Dean, be accepted *pro tanto* by the Senate as proof of the attendance on courses of instruction required by these By-laws. Provided always that no person shall be recommended to the Senate for the Degree in Dental Surgery unless he shall have attended, within the University of Sydney, during each of at least six terms, not less than two courses of instruction in subjects included in the Dental Curriculum of the University. In all such cases some certificate of general education satisfactory to the Senate will be required. Any Student who has served or is serving an apprenticeship in Mechanical Dentistry with a registered dentist may, on the report of the Board of Dental Studies, be exempted from the whole or a part of the prescribed workshop practice in that subject.

16.—A Graduate in Medicine of the University may be admitted to examination for the Degree in Dental Surgery on presenting satisfactory evidence that after graduation in Medicine he has devoted at least four terms to the study of Dentistry, and that he has attended the following courses of instruction prescribed for Students in Dentistry, viz.:—1. The Special Course of Lectures on the Anatomy of the Teeth. 2. Practical Metallurgy. 3. The Lectures in Surgical and Mechanical Dentistry. 4. Attendance during one year at a Dental Hospital, with Practical Instruction in Surgical and in Mechanical Dentistry. The examination in such cases shall be confined to the Anatomy of the Teeth, to Practical Metallurgy, and to Surgical and Mechanical Dentistry.

17.—Any person who has been admitted to the Licence in Dental Surgery of the University of Sydney may proceed to the Degree of Bachelor of Dental Surgery, after attending for one year such special courses and passing such examinations as may be prescribed by the Senate.

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## BY-LAWS REPEALED

*but applicable to Students entering the University  
not later than March, 1906.*

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### CHAPTER XIII.—YEARLY EXAMINATIONS.

1.—In the Faculties of Arts, Law and Science the yearly <sup>5-7-87</sup> B.A. and B.Sc. Examinations shall be held during the last week of Michaelmas Term, with the exception of the Honour Examinations and Professional Engineering Examinations, which may be held at the beginning of Lent Term.

2.—No undergraduate not exempted under Section 6, Chap. <sup>9-10-94</sup> XII., from attendance upon lectures shall be admitted to these examinations who, without sufficient cause, shall have absented himself more than three times during any one term from any prescribed course of lectures. At every yearly examination students must pass the prescribed examinations in the subjects of lectures before they can proceed with their course.

3.—Students who fail to pass, or neglect to attend their <sup>11-9-93</sup> annual examinations in any subject or subjects, may be required by their respective Faculties, upon the report of the Examiners, to attend again the lectures on such subject or subjects before again presenting themselves for examination.

4.—Every undergraduate exempted from attendance upon <sup>10-7-94</sup> lectures under Section 6, Chap. XII., shall, before being admitted to any yearly examination, pay to the Registrar a fee of two pounds.

4.—Undergraduates who have passed the yearly examina, <sup>18-7-93</sup> tion may, at the discretion of the Dean, and upon application, receive certificates to that effect, signed by the Dean of the Faculty in which they are pursuing their studies, and by the Registrar.

6.—At such examination honour papers shall be set where <sup>5-7-87</sup> necessary, and a list of the honour subjects shall be annually published in the Calendar.

7.—The names of those candidates who obtain honours shall <sup>5-7-87</sup> be arranged in order of merit.

- 5-7-87 8.—Examiners shall be appointed from time to time by the Senate to conduct the examinations provided for under these By-laws.

## CHAPTER XV.—FACULTY OF ARTS.

- 6-5-90 1.—The Faculty of Arts shall consist of the Professors of Classics, Mathematics, Modern Literature, History, and Logic and Mental Philosophy, together with the Lecturers in the same subjects.
- 27-9-92 2.—The Faculty shall meet for the purpose of considering and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations, and degrees in Arts, and such questions as may be referred to it by the Senate, and shall have the general direction and superintendence over the teaching in Arts, subject to the By-laws, and to such resolutions as the Senate may think fit to pass in relation thereto.
- 5-7-87 3.—The Professors in the Faculty of Arts, together with such other persons as may from time to time be appointed by the Senate, shall form a Board of Examiners for conducting the examinations in the Faculty of Arts; and of this Board the Dean of the Faculty, or in his absence the Professor next in seniority, shall be Chairman.
- 5-7-87 4.—The Board of Examiners shall from time to time, and in accordance with the provisions of the By-laws for the time being, frame rules and appoint times and places for the several Examinations in the Faculty of Arts.
- 5-7-87 5.—At the conclusion of each Examination the Board shall transmit to the Senate a report of the result signed by the Chairman and by at least two other members.

## EXAMINATION FOR MATRICULATION IN THE FACULTY OF ARTS.

- 9-10-94 6.—Candidates for the Degree of Bachelor of Arts shall be required at the commencement of their course to pass the Matriculation Examination for the Faculty of Arts.
- 5-7-87 7.—The Matriculation Examination shall take place at the commencement of Lent Term, but the examiners in special cases, with the sanction of the Chancellor or Vice-Chancellor, are authorised to hold such examinations at such other times as may be deemed expedient.
- 5-7-87 8.—The examination shall be conducted by means of written or printed papers, but the examiners shall not be precluded from putting *vivâ voce* questions.

9.—The names of all candidates who have passed the ~~27-4-92~~ Matriculation Examination shall be arranged and published in such order as the Board of Examiners shall determine.

10.—Any person who shall have passed one of the qualify- ~~12-4-98~~ ing Examinations, and shall have paid a fee of two pounds to the Registrar, may be admitted as a matriculated student.

The qualifying examinations are :—

- (a) The Matriculation Examination.
- (b) The Entrance Examination for the Faculties of Law, Medicine and Science.
- (c) The Senior Public Examination, provided that the candidate shall have passed at one Examination in the subjects prescribed for the Matriculation Examination.
- (d) The Junior Public Examination, provided that the candidate shall have passed at one Examination in the subjects prescribed for the Matriculation Examination, and shall have been placed in the first or second class in Latin and one of the three languages—Greek, French, German; or in the first or second class in Arithmetic, Algebra and Geometry.

11.—The Matriculation Examination shall be in the following ~~20-4-98~~ subjects :—

- I. Latin.
- II. Arithmetic.
- III. Algebra.—To two quadratic equations involving one unknown quantity.
- IV. Geometry.—Euclid, Books I., II. and III.
- V. One of the following languages, viz. :—  
Greek, French, German.

In this examination proficiency in writing English shall be taken into account.

#### BACHELOR OF ARTS.

12.—Candidates for the Degree of Bachelor of Arts shall, ~~21 12-87~~ during the first year, attend the University lectures on the following subjects :—

- I. English.
- II. Latin.

III. One of the following languages :—  
Greek, French, German.

IV. Mathematics.

V. Elementary Physics.

VI. Elementary Chemistry. } In successive Terms.

VII. Physiography. }

28-12-87 13.—Students of the first year shall be required to pass an examination in the subjects in which they have attended lectures under By-law 12, provided that in the case of Physics, Chemistry, and Physiography, students who shall have given satisfactory proof to the Lecturer of their intelligent attention to the lectures shall not be required to pass the annual examination in these subjects.

28-1-00 14.—Candidates for the Degree of Bachelor of Arts shall, during their second year, attend the University lectures upon the following subjects :—

I. Two of the following languages :—

Latin,	English,	German,
Greek,	French.	

II. Any two of the following subjects :—

A third language,	Mathematics,	Chemistry,
Physics,	Biology,	Geology,
History,	Physiology,	Logic.

Provided that those students who take up three languages shall select Latin or Greek as one of them. This proviso shall not apply to any student who shall have obtained First or Second Class Honours in both French and German at the First Year Examination.

28-12-87 15.—Students of the Second Year shall be required to pass an examination in the subjects of the lectures which they have attended under By-law 14.

5-5-03 16.—Candidates for the Degree of B.A. shall, during their Third Year, attend lectures on the following subjects :—

1. One of the following languages :—

Latin,	English,	German,
Greek,	French.	

II. Any two of the following :—

A second language,	Chemistry,
A third language,	Geology,
History,	Biology,
Mathematics,	Physiology,
Physics,	Logic and Mental Philosophy,
Constitutional Law,	Roman Law,
Jurisprudence, Legal History and the element of Political Science, International Law (Public and Private).	

Provided that those students who take two Law subjects may take History, Mathematics, or Logic and Mental Philosophy instead of a language.

17.—To obtain the Degree of B.A. candidates shall pass an <sup>23-12-87</sup> examination in the subjects of the lectures which they have attended under By-law 16.

18.—The work of students attending lectures shall be tested <sup>12-4-98</sup> by means of written and oral class examinations, class exercises, or essays, and the results of such tests shall be reported to the Senate.

19.—In determining the results of the Annual Examinations, <sup>12-4-98</sup> the Examiners shall take into account the results of the tests described in Section 18.

20.—The fee for the Degree of B.A. shall be three pounds. <sup>18-4-94</sup> No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him. For any re-examination for the same Degree he shall pay a fee of two pounds.

21.—The examination shall be conducted in the first instance <sup>5-7-87</sup> by means of printed papers, and at the termination of such examination each candidate shall undergo a *vivâ voce* examination if the Examiners think fit.

22.—Students proceeding to the Degree of B.A. who have <sup>21-4-98</sup> passed the First Year Examination, and who have thereat been placed in the First Class in the Honour list in Classics (Latin and Greek) or in Mathematics, may elect to attend lectures during the second year in that subject only in which they have been so

placed in the Honour list; and if they obtain First or Second Class Honours in that subject at their Second Year Examination they shall be held to have passed that examination.

21-4-93 23.—Students proceeding to the Degree of B.A. who have passed the Second Year Examination, and who have thereat been placed in the First or Second Class in the Honour list either in Classics (Latin and Greek) or in Mathematics, may elect to attend lectures during their third year in that subject only in which they have been so placed in the Honour list; and if they obtain First or Second Class Honours in that subject at their B.A. examination they shall be held to have passed that examination.

11-9-93 24.—The candidate for Honours who shall have most distinguished himself at the B.A. Examination in Classics, Mathematics, or Logic and Mental Philosophy, shall, if he possess sufficient merit, receive a bronze medal.

#### CHAPTER XVIII.—FACULTY OF SCIENCE.

26-4-97 5.—Candidates for the Degree of Bachelor of Science shall, before admission to the curriculum of Science, produce evidence of having graduated in Arts; or of having attended the lectures of the First Year of the Arts course, and passed the First Year Examination in Arts; or of having passed the Senior Public Examination in the following subjects, viz., Latin, one of the three languages—Greek, French, or German, and three of the following subjects, viz., Arithmetic, Algebra, Geometry, Trigonometry, Elementary Surveying and Astronomy, Mechanics, Applied Mechanics; or of having passed an examination equivalent to the Senior Public Examination in the following subjects, viz., Latin, one of three languages—Greek, French, or German, and in three of the four subjects—Arithmetic, Algebra, Geometry, Trigonometry; and shall, during the First Year, attend the courses of instruction upon, and pass the examinations in, the following subjects, viz.:—

- I. Biology and Practical Biology.
- II. Chemistry and Practical Chemistry.
- III. Mathematics.
- IV. Physics and Practical Physics.
- V. Physiography.

Provided that students shall only be required to attend the lectures upon, and to pass the annual examination in, such portions of the Mathematical course for the First Year as they have not already passed at the above-mentioned examinations.

6.—Candidates for the Degree of Bachelor of Science shall, <sup>8-10-99</sup> in the Second Year, attend the courses of instruction upon, and pass the examinations in, three of the following subjects, viz. :—

- I. Botany and Zoology.
- II. Lhemistry (with two terms laboratory practice).
- III. Geology.
- IV. Mathematics.
- V. Physics (with two terms laboratory practice).
- VI. Physiology (with two terms laboratory practice).

7.—Candidates for the Degree of Bachelor of Science shall, <sup>12-4-98</sup> in the Third Year, attend the courses of instruction upon, and pass the examinations in, two of the following subjects :—

- I. Biology.
- II. Chemistry.
- III. Geology.
- IV. Mathematics.
- V. Physics.
- VI. Physiology.

Students proceeding to the Degree of Bachelor of Science, who have passed the Second Year Examination, and who have thereat been placed in the First Class in Honours in one subject, and in the First or Second Class in Honours in another subject, may elect to attend lectures and practical work during their Third Year in one only of those subjects in which they have been so placed in the Honours List, and if they obtain First or Second Class Honours at the B.Sc. Examination they shall be held to have passed that examination.

#### CHAPTER XXIV.—EVENING LECTURES.

1.—Courses of Evening Lectures, embracing all the subjects <sup>30-7-94</sup> necessary for the Degree of Bachelor of Arts, shall be given at such times and in such order as the Senate may from time to time direct.

2.—Any person desirous of attending a course of Evening <sup>30-7-94</sup> Lectures may be allowed to do so upon payment of such fees as the Senate may from time to time direct.

3.—Students who desire to qualify themselves for gradua- <sup>30-7-94</sup> tion by attendance upon Evening Lectures shall be required to

pursue the course of study and pass the examination prescribed in Chapter XV. of the By-laws for candidates for the Degree of Bachelor of Arts.

(a) Provided that any Evening Student, if he so desires, may distribute the lectures and examinations of the First Year as prescribed in Sections 12 and 13 of Chapter XV., over two years, taking not less than two of the following subjects in each year, viz., (i.) Latin, (ii.) one of the following languages—Greek, French or German, (iii.) Mathematics, (iv.) English; and subject to his having previously passed the Matriculation Examination in any subject taken up (except English). Provided also that Evening Students may be permitted by the Faculty to take the lectures and examinations upon any of the three Scientific subjects of the First Year at a later period of their course.

(b) Provided also that any Evening Student, if he so desires, may distribute the lectures and examinations of the Second Year, as prescribed in Sections 14 and 15 of Chapter XV., over two years, taking not less than two of the subjects so prescribed in each year.

4.—In all cases not provided for in the preceding By-laws of this Chapter, Evening Students shall be subject to the same By-laws, Rules and Regulations as other students.

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# REGULATIONS.

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## DISCIPLINE.

### REGULATIONS PASSED BY THE PROFESSORIAL BOARD.

It shall be the duty of the Chairman of the Professorial Board to exercise a general supervision over the discipline of the University.

Every fine shall be paid to the Registrar within forty-eight hours from the time of its imposition. If not so paid, the fine shall be doubled; and if the double fine be not paid within one week from the time when the original fine was imposed, the Registrar shall report the fact to the Professorial Board, in order that suitable means may be taken against the offender for his contumacy.

The Dean of each Faculty shall call upon every student in his Faculty who shall have absented himself from more than ten per cent. of any prescribed course of lectures in any one term to show sufficient cause for such absence. The Dean shall at his discretion either decide that the cause shown is sufficient, or submit the matter to the Professorial Board for decision. Such students as fail to show sufficient cause for such absence are, under Section 2 of Chapter XIII. of the By-laws, excluded from admission to the Yearly Examinations.

No excuse for absence from lectures shall be received from any undergraduate unless tendered in writing to the Registrar within one week after he resumes attendance. Every written excuse for absence from lectures in any Faculty shall be submitted to the Dean of that Faculty, who may at once decide that such excuse shall be accepted, or in cases of doubt, may call a meeting of the Professorial Board to adjudicate thereon.

Matriculated students who have lost their places in their own proper year, either by non-attendance at the prescribed course of lectures or by failing to pass the required examinations, are not allowed to compete for honours, scholarships, or prizes at subsequent Yearly, Professional, or Degree Examinations unless by express permission of the Professorial Board.

No student in the Faculty of Medicine who has not been specially exempted shall receive a certificate of attendance upon any course of instruction who shall not have been present at sixty per cent. at least of the meetings of the course.

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### THE UNIVERSITY LIBRARY.

*For books allowed to be taken out of the Library.*

1.—No person shall be allowed to take books out of the Library but Fellows of the Senate, Professors and other Public Teachers in the University, Officers of the University or other persons who shall have obtained this privilege under a special resolution of the Senate, and graduates having their names on the books of the University, and being resident in Sydney or its suburbs.

2.—No books shall be taken out of the Library except with the sanction of the Librarian, who shall enter in the book kept for the purpose the name of the borrower, the title of the book borrowed, and the date of the loan, and this entry shall be signed at the time by the borrower.

3.—No person shall be allowed to have in his possession at one time more than ten volumes belonging to the Library, but the Library Committee may dispense with this order in any particular case if they shall be of opinion that sufficient reasons have been assigned for such dispensation; such dispensation, however, shall continue in force no longer than to the end of the current quarter, but upon fresh application may be renewed by the same authority.

4.—Every one who shall borrow or take any book out of the Library shall return it thither again on demand of the Librarian at any time after the expiration of seven days, and without such demand on or before the next of the four following Quarter Days, viz.:—March 31st, June 30th, September 30th, December 31st, under penalty of two shillings for every folio or quarto, and one shilling for every book of less size; all penalties to be repeated every fortnight till the book be returned, or others of the same edition and equal value be placed in their room, such fortnight being first reckoned from the day on which the Library is re-opened after the Quarter Day. If any of the

Quarter Days should fall on a Sunday, or on any other day on which the Library is closed by Rule 20, the day appointed for returning the books shall be the following day.

5.—No book shall be taken out of the Library on the days appointed for the return of books.

6.—Every Professor shall have the privilege of obtaining books for each student attending his lectures and being a member of the University. Each order for the volumes so obtained shall bear the titles of the books, and be dated and subscribed as follows:—

*For M.N.,  
C.D., Professor.*

The books so obtained shall not be taken out of the Library till the day after that on which the Library is re-opened for the Quarter, and they shall be returned at any time after the expiration of seven days, if demanded by the Librarian, and, if not so demanded, not later than the day before the next Quarter Day. The Professor shall be responsible for the books so obtained, and for the penalties under Rule 4; and no student shall have in his possession at one time more than five volumes.

7.—A list of the books omitted to be returned at the end of any quarter, together with the names of the borrowers, shall be posted up in some conspicuous place in the Library.

8.—No person from whom any fine is due to the Library shall be allowed to take out books until such fine has been paid.

9.—If any book be injured or defaced by writing while in the possession of any person taking it out of the Library, he shall be required to replace it by another book of the same edition and of equal value. Persons taking books out of the Library are required to report, without delay, to the Librarian any injury which they may observe in them.

*For books not to be taken out of the Library without a note  
countersigned by the Chancellor or Vice-Chancellor.*

10.—Certain printed books, of which a list shall be prepared under the authority of the Library Committee, and kept by the Librarian, shall not be taken out except by a note countersigned by the Chancellor or Vice-Chancellor, nor until the day after that on which the note is presented; and no such note shall be given to any undergraduate member of the University, nor shall any

person have more than five volumes of such books out of the Library at one time. A register shall be kept of all such books taken out of the Library, and of the date on which they are returned; and after the books are returned the plates in them shall forthwith be collated, and the collation be registered; and until such collation shall have been made, the books shall not be accessible to persons using the Library, nor shall the countersigned note be given up to the persons by whom the books are returned, but in lieu of it an acknowledgment signed by the Librarian or his deputy; and the name of the person by whom the acknowledgment is signed shall also be registered.

11.—The penalties for not returning such books at the Quarter Days shall be double of the penalties prescribed in Rule 4.

*For MSS. and books not allowed to be taken out of the Library.*

12.—The Library Committee may cause MSS., books containing collections of prints or drawings, and other documents and books of a nature or value to render such precaution expedient, to be locked up in cases or compartments by themselves. These shall not be taken out of the Library on any pretence whatever; and access to them shall not be allowed unless the Librarian or someone deputed by him be present. The Librarian himself shall have charge of the keys.

13.—The Library Committee may direct that certain printed books, of which a list shall be kept by the Librarian, shall not be removed from the Library.

14.—Persons desirous of referring to any particular MSS. or scarce printed books shall apply to the Librarian, who, if he see cause, may allow such MSS. or books to be consulted, but not in the compartment in which the MSS. or scarce printed books are kept.

15.—Parts of periodicals, works in progress, pamphlets, &c., until such time as is proper for binding them, shall be kept under such a system of management that they may be produced, if required, after a few minutes' notice, on application being made to the Librarian, by means of an ordinary Library note, so that persons in whose literary researches such works are necessary may consult them in the Library with the consent of the Librarian.

*For admission to the Library.*

16.—Except on the day when the Library is re-opened for any quarter, those Undergraduates who have obtained a Professor's order for books shall be admitted to the Library for the purpose of selecting their books, or otherwise consulting the Library, during the hour from one to two.

*Admission of persons not Members of the University for the purpose of Study and Research.*

17.—The Chancellor or Vice-Chancellor may grant an order of admission to the Library for the purpose of study and research to any person who shall produce to him a recommendation from any Fellow of the Senate, or Professor, or any member of the University who shall have been admitted to the Degree of M.A. or any higher Degree, stating "that the person recommended is well known to him," and "that he is a fit and proper person to obtain such order." The name of the member of the Senate or the Professor upon whose recommendation any such order of admission shall be granted shall be placed after the name of the person receiving the permission in a list to be suspended at the entrance of the Library.

18.—Such persons shall be permitted to use the Library whilst open, except on any days on which the Library is first open for the quarter. This admission order shall have effect only until the expiration of the quarter in which it shall have been granted, and it shall not entitle the holder to have access to lock-up cases.

*For Opening and Closing the Library.*

19.—For the purpose of allowing the Librarian sufficient time to inspect the books, the Library shall be closed for the first fortnight in the month of January, and also for the two days (excepting Sunday) next after each of the other Quarter Days.

20.—The Library shall be closed on Sundays and Public Holidays.

21.—The Library shall be open on Saturdays from ten till one, and other days from ten till three.

## FISHER BEQUEST.

In 1885 the sum of £30,000, or thereabouts, was bequeathed to the University by Thomas Fisher, Esq., "to be applied and expended by the Senate for the time being of the University in establishing and maintaining a Library for the use of the University, for which purpose they may erect a building, and may purchase books, and do anything that may be thought desirable for effectuating the purposes aforesaid."

The Government of the State having decided in 1901 to defray the cost of the erection of a new building at the University, to be called the Fisher Library, the principal money of the Fisher Fund is, by direction of the Senate, to be kept as a perpetual endowment fund for keeping up and adding to the Library.

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## NICHOLSON MUSEUM OF ANTIQUITIES.

*Committee of Management*—Professor BUTLER, B.A.; Professor WOOD, M.A.;  
Professor WOODHOUSE, M.A.; JOSIAH MULLENS, Esq.

*Honorary Curator*—Professor WOODHOUSE, M.A.

## REGULATIONS.

1.—The Bedell shall have charge of that portion of the building devoted to the Museum, and during the absence of the Curator shall be responsible for the due care of the collection.

2.—The Museum shall be open for the admission of visitors every Saturday from the 1st May to the 31st October, from two to five p.m.; and from the 1st November to the 30th April, from two to six p.m. Visitors may also be admitted at any other convenient time when accompanied by a Member of the Senate, or by any Professor or Superior Officer of the University, or by the Curator or the Bedell in charge of the Museum.

3.—All visitors to the Museum shall be required to give their names and addresses, which shall be entered in a book to be kept for that purpose.

4.—Children under 15 years of age shall not be admitted unless accompanied by older friends.

**MACLEAY MUSEUM.**

*Committee of Management*—The Challis Professor of Biology, the Professor of Geology and Physical Geography.

*Curator*—G. MASTERS.

In the year 1874 the Hon. Sir W. Macleay, M.L.C., undertook to present to the University of Sydney his collection of Natural History, together with an endowment for the stipend of a Curator, as soon as a suitable building should have been provided for its reception. The conditions attached to this donation were—

1. That the present Curator should be continued in office;
2. That the endowment of £6,000 for the salary of a Curator should be used for this and no other purpose; and
3. That the Museum should be made easily accessible to students of Natural History and members of the Linnean Society of New South Wales.

Under these conditions the Senate gratefully accepted Mr. Macleay's gift; and the Parliament having made liberal provision for the buildings required, the collection is now in the University.

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**MUSEUM OF NORMAL AND MORBID ANATOMY.**

*Committee of Management*—The Dean of the Faculty of Medicine, The Challis Professor of Anatomy, the Professor of Pathology.

*Honorary Curator*—Professor D. A. WELSH, M.A., B.Sc., M.D.

**REGULATIONS.**

1.—The Museum shall be called the Museum of Normal and Morbid Anatomy, and shall be established for the benefit of all the Medical Departments of the University.

2.—The Museum shall be under the control of a Committee of Management, to be appointed by the Senate at its first meeting in Lent Term.

3.—The Committee shall consist of the Dean of the Faculty of Medicine for the time being, together with two members of the Medical Teaching Staff to be chosen by the Senate.

4.—The working Curator shall be under the control of the Committee of Management; and in the second Thursday of each

Term he shall transmit to the Dean, for the Senate, a report, to be written in a separate book kept for that purpose, of all the work he has done since the last report.

5.—Requisitions for the expenditure of money in connection with the Museum shall be submitted by the Committee of Management to the Finance Committee of the Senate for its approval.

### UNIVERSITY EXTENSION LECTURES.

SEE ALSO BY-LAWS, CHAP. XXV. (PAGE 62).

UNIVERSITY EXTENSION BOARD, 1905.—Members of the Senate: His Honor Judge Backhouse, M.A.; H. C. L. Anderson, M.A.; the Hon. W. P. Cullen, M.A., LL.D.; R. Teece, F.I.A. Members of the Teaching Staff: Professors M. W. MacCallum, M.A.; T. W. E. David, B.A.; G. Arnold Wood, M.A.; F. Anderson, M.A.; Pitt Cobbett, M.A., D.C.L.; W. J. Woodhouse, M.A. Unofficial Members: E. B. Taylor, Rev. Andrew Harper, M.A., D.D.; Rev. J. Fordyce, M.A., D.D.; John Kent, G. S. Littlejohn, J. M. Taylor, M.A., LL.B.; R. F. Irvine, M.A. Hon. Secretary: Professor M. W. MacCallum, M.A.

#### REGULATIONS REFERRING TO LECTURE COURSES.

1.—The Board is prepared to receive and consider applications for courses of University Extension Lectures to be delivered in Sydney, or in any suburb of Sydney or country town.

Applications may be made either by a public institution, such as a School of Arts, or by a Home Reading Circle, or by a Committee specially formed for the purpose. They should be addressed to the Secretary of the University Extension Board, the University, Sydney, who will forward a list of available Lecturers and subjects, and give any other information that may be desired. The Board will, as far as possible, consult the wishes of the applicants in the selection of Lecturer and subject, and in fixing the dates of the lectures and the intervals between them. Courses have usually consisted of ten or six lectures, delivered at intervals of a week.

2.—Applicants must undertake to become responsible for the local management and local expenses of the lectures, and for the payment of the charges made by the Board.

The local management undertaken by the applicants will include providing a suitable lecture room, furnished, if possible, with desks or tables for the convenience of students taking notes; advertising the lectures; arranging for the sale of tickets; and providing a room with suitable appliances and supervision for the concluding examination.



The charge payable to the Board has been fixed at £30 for a course of ten lectures, and £18 for a course of six. But if the lectures are delivered in country towns the charge may be reduced to £20 for a course of ten lectures and £12 for a course of six. The arrangements for the sale of tickets for the course (including the fixing of their price) will be left in the hands of the Local Committee, who may use the proceeds to defray the expenses which have been incurred. It is left to the option of the Local Centre to raise the requisite amount by the sale of tickets, by subscription, or by a combination of these methods; but the amount payable, or a satisfactory guarantee for its payment, must be lodged with the Secretary of the Board before the course begins.

3.—Every person who attends the course will be supplied with a syllabus containing an analysis of each lecture and a list of books recommended for study and reference. The Board will issue to Local Secretaries all copies of syllabus. At each lecture the Lecturer will set questions to be answered in writing by the students. These written answers should reach the Lecturer at least a day before the following lecture. Each lecture will be of an hour's length, and will be followed by a conversation class, at which the Lecturer will comment on and return the written answers of students, invite and answer questions, and discuss and explain difficulties.

4.—Immediately after the last lecture of the course, the Lecturer will send to the Secretary of the Board a report of the attendance, together with a record (in the form of numerical marks or otherwise) of the written work of the students, and a list of those students who have regularly attended the lectures and conversation classes, and have satisfied him by their work during the course.

The course will conclude with an examination, to which those only who are included in the Lecturer's list will be admitted. The examination will be conducted, in consultation with the Lecturer, by a Professor or other Examiner appointed by the Board; and certificates will be awarded on the result of the examination.

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# GENERAL REGULATIONS.

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## MATRICULATION EXAMINATION.—MARCH, 1906.

*See Amended By-laws in reference to the Matriculation Examination on page 28 (Chapter X., Sections 5 and 6).*

CANDIDATES for MATRICULATION in 1906 are required to pass a satisfactory Examination in Latin, Arithmetic, Algebra, Geometry, and one of the following subjects—Greek, French, German. Proficiency in writing English is also taken into account. The Matriculation Pass Examination for candidates intending to enter the University in March, 1906, will begin on Monday, MARCH 5th, 1906. The Examination for Matriculation Honours and Scholarships will commence on NOVEMBER 13th, 1905.

Details of the Matriculation Examination for admission to all Faculties in March, 1907, will be found on page 91.

### COMPULSORY SUBJECTS—PASS, MARCH, 1906.

- 1.—*Latin*—Translation into English of passages from set authors and of Latin passages at sight, and translation of simple English sentences into Latin. Candidates are expected to show an accurate knowledge of Latin accidence. Cicero pro Murena (*Heitland*, Cambridge).
- 2.—*Arithmetic*.
- 3.—*Algebra*—Up to quadratic equations involving one unknown quantity. Questions may be set requiring the use of squared paper.
- 4.—*Geometry*—Two papers will be set in Geometry. For one of these the subject of study will be the first three books of Euclid, and easy questions upon their subject matter. Proofs other than Euclid's will be admitted, but no proof of any proposition will be accepted which assumes the proof of anything not contained in preceding propositions in Euclid. In the alternative paper the regulations for the corresponding Geometry paper in the Junior Public Examination will be adhered to. Candidates will be

required in their entry form to specify which paper they desire to take. It is hoped that after a few years it will not be necessary to continue both these papers.

OPTIONAL SUBJECT—PASS.

- (a)—*Greek*—An Examination similar to that in Latin.—Andocides, *De Mysteriis* (ed. *W. J. Hickie*, Macmillan's Classical Series.)
- (b)—*French*—An examination similar to that in Latin.—Daudet, *Tartarin de Tarascon* (Siepmann's Series, Macmillan).
- (c)—*German*—An examination similar to that in Latin.—Wildenbruch, *Harold* (Heath & Co.).

Students who wish to take up, in their University course, a language which they have not offered at the Matriculation Examination, are reminded that the courses of lectures will begin on the assumption that the Matriculation standard of proficiency in that language has been attained.

Preliminary Examinations (equivalent to the Matriculation Examination) for Articled Clerks are held at the University in the months of April, and November, commencing on the first Monday in April, and the second Monday in November. Fee, £5 10s. 6d., to be paid to the Prothonotary of the Supreme Court.

The subjects of the Examinations to be held in November, 1905, and April, 1906, will be the same as those prescribed for the Matriculation Examination of March, 1906.

Candidates will have the same choice of Geometry papers as stated above on page 88.

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ENTRANCE EXAMINATION FOR THE FACULTIES OF  
LAW, MEDICINE, AND SCIENCE.

MARCH, 1906.

*See Amended By-laws in reference to the Matriculation Examination on page 28 (Chapter X., Sections 5 and 6.)*

THIS examination qualifies for direct admission to the courses of Law, Medicine, and Science in the case of those who do not

graduate in Arts or pass through the portions of the Arts course prescribed by the By-laws of the several Faculties. Candidates are required to satisfy the Examiners in the following subjects:—

1. Latin.
2. Greek, French or German.
3. Three of the following subjects, or *four* in the case of candidates for a Degree in the Department of Engineering:—
  - (a) Arithmetic, including the elements of Mensuration.
  - (b) Algebra.
  - (c) Geometry.
  - (d) Trigonometry.

The standard required in the individual subjects is the same as that of the Senior Public Examination.

The details of the Examination to be held in MARCH, 1906, are as follows:—

*Latin*.—Translation from specified books, with questions on language and subject matter. Translation at sight from Latin into English and from English into Latin. Cicero pro Murena (*Heitland*, Cambridge); Virgil, *Æneid*, Book II. (*Sidgwick*, Cambridge, or *Page*, Macmillan).

*Greek*.—An Examination similar to that in Latin. Sophocles, *Antigone* (*Jebb*, smaller edition, ed. by *E. R. Shuckburgh*, Cambridge, 4/-; or, ed. by *G. H. Wells*, Bell & Sons' Illustrated Classics, Intermediate Series); Andocides, *De Mysteriis* (ed. *W. J. Hickie*, Macmillan's Classical Series).

*French*.—An examination similar to that in Latin. Daudet, *Tartarin de Tarascon* (Siepmann's Series, Macmillan); Molière, *L'Avare* (Macmillan).

*German*.—An examination similar to that in Latin. Wildenbruch, *Harold* (Heath & Co.); Kurz, *Die Humanisten* (Siepmann's Series (Macmillan).

*Arithmetic*.—Including the elements of Mensuration.

*Algebra*.—Including the three progressions, the binomial theorem for a positive index, and the properties and use of logarithms.

*Geometry*.—The first four books of Euclid and easy deductions.

While all candidates will be required to know the subject matter of these four books of Euclid, Euclid's sequence

will not be insisted upon in the case of those whose instruction has followed another order. Such candidates will be required to state the text books they have studied.

*Trigonometry.*—Including solution of triangles, heights and distances, and properties of triangles.

Candidates will be provided with Barraclough's Four Figure Trigonometrical Tables for use in the Algebra and Trigonometry papers.

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### HONOURS AT MATRICULATION.

THE Examination for Matriculation Scholarships and Honours, for candidates intending to enter the University in March, takes place in the previous NOVEMBER, concurrently with the Senior Public Examination. All candidates for the Senior Public Examination may compete for Matriculation Scholarships and Honours upon giving due notice of their desire to do so. Those who wish to compete for Scholarships and Honours in special subjects, without entering for the Senior Public Examination, may do so upon payment of the Matriculation fee of two pounds; and if they have not already passed an examination which qualifies for Matriculation, they may attend the Pass Matriculation Examination in the following March, without paying an additional fee. Candidates who gain Honours in any subject in November are exempt from taking the corresponding pass paper in the following March. Honours are awarded in Latin, Greek, French, German, and Mathematics.

### CLASSICS.

**LATIN.**—Translation from specified books, with questions on language and subject matter. Translation at sight from Latin into English, and from English into Latin. The Examination will include questions on Roman History; and questions may be asked on any subject included under the study of the Latin language and literature.

Nov., 1905—Cicero pro Murena (*Heitland*, Cambridge); Virgil, *Æneid*, Book II. (*Sidgwick*, Cambridge, or *Page*, Macmillan); History of Rome, from the Tribunate of Tiberius Gracchus to the Battle of Actium (B.C. 133 to 31).

Nov., 1906—Livy, Book XXI. (*Trayes, Bell*); Horace, Odes, Book III. (*Page, Macmillan*); History of Rome, from the Tribune of Tiberius Gracchus to the battle of Actium (B.C. 133 to 31).

**GREEK.**—An Examination similar to that in Latin.

Nov., 1905—Sophocles, *Antigone* (*Jebb*, small edition, ed. by *E. S. Shuckburgh*, Cambridge, 4/-, or ed. *G. H. Wells*, Bell & Sons' Illustrated Classics, Intermediate Series); Andocides, *De Mysteriis* (ed. *W. J. Hickie*, Macmillan's Classical Series). History of Greece, from the expulsion of the Pisistratidæ to the end of the Peloponnesian War (B.C. 510 to 404).

Nov., 1906—Homer, *Odyssey*, Books IX. and X. (ed. *Merry*, Clarendon Press); Plato, *Meno* (ed. *E. S. Thompson*, Macmillan); History of Greece, from the Archonship of Solon to the end of the Peloponnesian War (B.C. 510 to 404).

**FRENCH AND GERMAN.**—Translation from specified books, with questions on language and subject matter. Translation at sight from French and German into English, and from English into French and German. The Examination will include questions on Grammar, Philology, Literature, or other subjects connected with the study of Modern Languages.

*French.*—Nov., 1905—Daudet, *Tartarin de Tarascon* (Siepmann's Series, Macmillan); Molière, *L'Avare* (Macmillan).

Nov., 1906—Dumas, *La Tulipe Noire* (*Heath*); Molière, *Le Bourgeois Gentilhomme* (Macmillan).

*German.*—Nov., 1905.—Wildenbruch, *Harold* (Heath & Co.); Kurz, *Die Humanisten* (Siepmann's Series, Macmillan).

Nov., 1906—Benedix, *Doctor Wespe* (Cambridge University Press); Uhland, *Ballads and Romances* (Macmillan).

**MATHEMATICS.**—Nov., 1905.—The Honour papers in Mathematics will be (i.) Algebra: (ii.) Geometry; (iii.) Trigonometry.

**FOR NOVEMBER, 1906—**

(i.) Algebra, including the three progressions, the binomial theorem for a positive index, and the properties and use of logarithms. Questions on Arithmetic will also be included.

- (ii.) \*Geometry, including Mensuration.
- (iii.) Plane Trigonometry up to solution of triangles, properties of triangles, De Moivre's Theorem, limits and simple series.
- (iv.) Either (a) Mechanics, or (b) Geometrical Conics and the Analytical Geometry of the straight line and circle.

Candidates will be provided with Barraclough's Four Figure Trigonometrical Tables (Angus & Robertson, 6d.) for use in the Algebra and Trigonometry papers.

#### SCHOLARSHIP FOR GENERAL PROFICIENCY, 1906.

The Scholarship for General Proficiency will be awarded to the candidate who shows the greatest proficiency in not more than ten of the following twelve subjects:—(i.) English, (ii.) Latin, (iii.) Greek, (iv.) French, (v.) German, (vi.) Algebra, (vii.) Geometry and Mensuration, (viii.) Trigonometry, (ix.) (a) Mechanics or (b) Conic Sections, (x.) Ancient History, (xi.) Modern History, (xii.) One Science subject.

#### MATRICULATION EXAMINATION, MARCH, 1907.

The following are the details of the Matriculation Examination in various faculties to be held in March, 1907, under the revised by-laws, Chapter X., sections 5 and 6.

All candidates are required to pass in the subjects of Division A, and in two or three subjects of Division B, according to the Faculty or Department which they propose to enter.

For the Faculty of Arts, two subjects of Division B are required, one of which must be Higher Latin.

For the Faculties of Law, Medicine, Science, and the Department of Engineering, three subjects of Division B are required, Higher Latin being compulsory for the Faculty of Law; while candidates in Medicine, Science, and Engineering must take Higher Latin, Higher Greek, Higher French, or Higher German, and candidates for Engineering, Higher Mathematics as well.

Candidates may present themselves for the subjects prescribed in Division A and B successively or concurrently, but must pass in the total number of subjects required at not more

\* For the Geometry paper, see the Regulations for the Senior Public Examination for 1905.

than two Examinations, one of which must include all the subjects prescribed in Division B, provided that the Higher Examination in any subject shall be held to include the lower.

#### DIVISION A.

1. English—Questions in the language generally and in the set book.

*Subject for March, 1907.*—\*Scott, Lord of the Isles.

2. Latin—Translated from specified books, with questions on language and subject matter. Easy passages will also be given for translation at sight from Latin into English and from English into Latin.

*Subject for March, 1907.*—\*Cicero, pro Archia (*Nall, Macmillan*); Cicero, pro Lege Manilia (*Wilkins, Macmillan*).

3. Mathematics—(a) Arithmetic. With respect to the English Tables of Weights and Measures, only those parts which are in general use will be required.

(b) Algebra.—Up to quadratic equations with two unknown quantities, ratio, proportion, surds, and simple questions in fractional and negative indices. Questions may be set involving the use of squared paper in simple equations and simple simultaneous equations.

(c) Geometry.—See the Regulations for the Matriculation Examination of 1906, page 88.

4. (a) Greek.—An examination similar to that in Latin.

*Subject for March, 1907.*—\*Lucian, Vera Historia (ed. Yates, in Bell's Illustrated Classics).

(b) French.—An examination similar to that in Latin.

*Subject for March, 1907.*—\*Jules Verne, Le Tour du Monde (*Siepmann's Series, Macmillan*).

(c) German.—An examination similar to that in Latin.

*Subject for March, 1907.*—\*Goebel, Rubezahl (*Siepmann's Series, Macmillan*).

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\* Candidates may present one of the authors prescribed in Division B in lieu of this subject.



## DIVISION B.

1. Higher Latin.—Translation from specified books, with questions on language and subject matter. Translation at sight from Latin into English, and from English into Latin.

*Subjects for March, 1906*—Livy, Book XXI. (*Tracy, Bell*); Horace, Odes, Book III. (*Page*).

2. Higher English.—Questions on the structure and origin of the language; on the derivation and the meaning of words; on idioms and usages. Composition. Questions on a set subject.

*Subjects for March, 1907*—Shakespeare, Henry IV., Part I. (ed. *Deighton, Macmillan*); Gray, Poems (ed. *Watson, Clarendon Press*).

3. Higher Mathematics.—(a) Algebra, including the three progressions, the binomial theorem for a positive index, and the properties and use of logarithms. Questions on arithmetic will also be included.

(b) Geometry, including Mensuration.

(c) Plane Trigonometry up to solution of triangles, properties of triangles, De Moivre's Theorem, limits and simple series.

4. Higher Greek.—An examination similar to that in Higher Latin.

*Subjects for March, 1907*—Homer, Odyssey, Books IX. and X. (ed. *Merry, Clarendon Press*); Plato, Meno (ed. *E. S. Thompson, Macmillan*).

5. Higher French.—An examination similar to that in Higher Latin.

*Subjects for March, 1907*—Dumas, La Tulipe Noire (*Heath*); Molière, Le Bourgeois Gentilhomme (*Macmillan*).

6. Higher German.—An examination similar to that in Higher Latin.

*Subjects for March, 1907*—Benedix, Doctor Wespe (*Cambridge University Press*); Uhland, Ballads and Romances (*Macmillan*).

7. Mechanics.—The elements of Statics and Dynamics.

## 8. ONE OF THE FOLLOWING SCIENCE SUBJECTS—

(a) Botany.—General Structure and Physiology of Plants. Characteristic features of the following classes—Fungi, Algæ, Musci, Filices, Lycopodiaceæ, Phanerogamia.

Candidates will be expected to show a practical acquaintance with common examples of these classes, and to be able to distinguish members of the following orders of flowering plants—Ranunculaceæ, Cruciferae, Rutaceæ, Malvaceæ, Leguminosæ, Labiatae, Eyacrideæ, Casuarinæ, Myrtaceæ, Umbelliferae, Proteaceæ, Compositæ, Liliaceæ, Orchideæ, Graminaceæ.

BOOKS RECOMMENDED.—J. W. Oliver's *Elementary Botany* (*Blackie and Son*); Dendy and Lucas's *Introduction to the Study of Botany* (*Melville, Mullen and Slade*).

(b) Inorganic Chemistry.—The Non-Metals and their principal inorganic compounds.

Candidates in Chemistry should be taught the subject practically; where it is impossible for each candidate to perform the necessary experiments personally, lessons illustrated by experiments should be given by the teachers.

BOOK RECOMMENDED.—Tilden's *Manual of Inorganic Chemistry* (*Churchill and Co.*); or Thorpe's *Inorganic Chemistry*, 2 vols. (*Collins and Co.*).

(c) Geology.—Candidates will be expected to show a knowledge of the same divisions of this subject as those required for the Junior Examination, but at a higher standard. Stratigraphy and Palæontology, however, should be studied in greater detail than for the Junior, and knowledge of a few characteristic fossils of the different geological systems will be required. Candidates will be asked to name and classify the specimens placed before them of common rocks, rock-forming minerals and fossils. Candidates should also be taught elementary field mapping.

BOOKS RECOMMENDED.—*Elementary Physical Geography*, Professor Davis; *Geology for Beginners*, W. W. Watts (or *Students' Elements of Geology*, by Lyell, second edition, by Judd, 1896: this is somewhat more comprehensive than Watts); *Volcanoes*, Professor Judd; *Field Geology*, Penning, 1894 edition, with omission of pp. 176-200 and 267-291.

(d) Physics.—Properties of Matter, Heat, Sound and Light.

Properties of Matter.—Properties of gases, liquids and solids, molecular phenomena in liquids.

Heat.—Thermometry and expansion, calorimetry, elementary phenomena connected with change of state, conduction, radiation, mechanical theory of heat.

**Sound.**—Wave motion, production and propagation of sound, pitch, musical scale, reflection, refraction and interference, vibrations of strings, rods, plates and columns of gas, resonance, audition, combination tones, consonance and vocal sounds.

**Light.**—Rectilinear propagation, reflection, refraction, lenses, photometry, velocity of light, dispersion, interference, emission and absorption of light, colour sensations, polarisation and double refraction.

**BOOK RECOMMENDED.**—Watson's Text-book of Physics, omitting those sections marked with an asterisk.

(e) **Physiology.**—The Elements of Animal Physiology.

**BOOKS RECOMMENDED.**—Foster and Shore's Physiology for Beginners (*Macmillan*); and Huxley's Lessons in Elementary Physiology (*Macmillan*).

(f) **Zoology.**—General Structure and Life History of Animals, with Outlines of their Classification.

**BOOK RECOMMENDED.**—Parker and Haswell's Manual of Zoology.

(g) **Modern History.**—*Subject for March, 1907*—The History of Europe, including the History of the British Empire, from 1789 to the present time.

For Books Recommended, see Manual of Public Examinations.

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FACULTY  
TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		Mon.	Tu.	W.	Th.	Fri.
FIRST YEAR.						
7	**French .. .. .	¶11	11	..	9A	11B
1	Latin (A and B) .. .. .	9	¶9	9	..	9
4	Greek .. .. .	..	9	..	9	..
14	Mathematics .. .. .	10	10	10	10	10
9	German (Junior) .. .. .	¶3	..	3	11	..
11	English .. .. .	..	..	11	..	..
24	Chemistry .. .. .	12	12	..	12	12
20	Physics .. .. .	..	..	..	..	..
32	Physiography .. .. .	..	..	..	..	..
31	*Chemistry (Practical) for Honours	2-5	..	2-5	..	2-5
SECOND YEAR.						
14	Mathematics .. .. .	9	9	9	9	9
10	German (Senior) .. .. .	¶2,3	..	9	11	..
21-23	Physics, with Laboratory Practice ..	..	10	..	10	..
12	English .. .. .	..	10	..	¶9,1	10
18	History .. .. .	10	..	10	10	..
2	(b) Latin .. .. .	11	¶11	11	..	11
5	Greek .. .. .	..	11	..	11	..
33	†Geology .. .. .	..	11	..	11	..
36	Geology (Practical) .. .. .	10	..	10	..	..
38-44	Biology, with Laboratory Practice ..	11	11	11	11	11
26, 31	Chemistry (Metals), with one term Practical	..	..	..	..	..
8	French (Senior) .. .. .	12	..	12	¶2	12
15	Logic and Mental Philosophy .. .. .	..	12	..	12	9
51	(a) Physiology .. .. .	12	12	12	12	12
51	.. (Practical) .. .. .	..	..	..	..	..
THIRD YEAR.						
35A & B	†Geology .. .. .	..	9	..	9	..
10	German (Senior) .. .. .	¶2,3	..	9	11	..
13	English .. .. .	9	9	¶9	..	9
3	§Latin .. .. .	10	..	10	10	10
6	Greek .. .. .	..	10	9,12	..	12
16	Logic and Mental Philosophy .. .. .	..	11	..	9	11
14	Mathematics .. .. .	11	11	11	11	11
19	History .. .. .	11	..	11	11	..
38-44	Biology, with Laboratory Practice ..	11	11	11	11	11
26, 28, 31	Chemistry, with one term Practical	..	..	..	..	..
8	French (Senior) .. .. .	12	..	12	¶2	12
22, 23	Physics, with Laboratory Practice ..	..	12	..	12	..
51	(a) Physiology .. .. .	12	12	12	12	12
51	.. (Practical) .. .. .	10-12	10-12	10-12	10-12	10-12

\* Or at times to be arranged. † Practical work each week as arranged. Excursions every third or fourth Saturday as arranged. ¶ Honours Lecture. ‡ Additional Honours lecture, 12 to 1 on Thursdays. \*\* (A) Class A. (B) Class B. (a) In addition, a special course (No. 46), at times to be arranged. (b) Composition class, one hour a week additional.

# OF ARTS.

## OF LECTURES.

refer to the Synopses of Lectures on pp. 120-188.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	Mon.	Tues.	Wed.	Thur.	Fri.	Mon.	Tues.	Wed.	Thur.	Fri.
7	¶11	..	12	9A	11B	¶11	..	12	9A	11B
1	9	¶9	9	..	9	9	¶9	9	..	9
4	..	9	..	9	..	..	9	..	9	..
14	10	10	10	10	10	10	10	10	10	10
9	¶3	..	3	11	..	¶3	..	3	11	..
11	..	..	11	..	..	..	..	11	..	..
20	..	..	..	..	..	..	..	..	..	..
32	12	12	..	12	12	..	..	..	..	..
	..	..	..	..	..	12	12	..	12	12
	..	..	..	..	..	..	..	..	..	..
14	9	9	9	9	9	9	9	9	9	9
10	¶2, 3	..	9	11	..	¶2, 3	..	9	11	..
21-23	..	10	..	10	..	..	10	..	10	..
12	..	10	..	¶9,1	10	..	10	..	¶9,1	10
18	10	..	10	10	..	10	..	10	10	..
2	11	¶11	11	..	11	11	¶11	11	..	11
5	..	11	..	11	..	..	11	..	11	..
33	..	11	..	11	..	..	11	..	11	..
36	10	..	10	..	..	10	..	10	..	..
38-44	..	9	12	9	..	..	..	..	..	..
26, 31	11	11	11	11	11	..	..	..	..	..
8	12	..	12	¶2	12	12	..	12	¶2	12
15	..	12	..	12	9	..	12	..	12	9
51	12	12	12	12	12	..	..	..	..	..
51	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12
35A & B	..	9	..	9	..	..	9	..	9	..
10	¶2, 3	..	9	11	..	¶2, 3	..	9	11	..
13	9	9	¶9	..	9	9	9	¶9	..	9
3	10	..	10	10	10	10	..	10	10	10
6	..	10	9,12	..	12	..	10	9,12	..	12
16	..	11	..	9	11	..	11	..	9	11
14	11	11	11	11	11	11	11	11	11	11
19	11	..	11	11	..	11	..	11	11	..
38-44	..	9	12	9	..	..	..	..	..	..
26, 28, 31	¶11	11	11	11	11	12	12	12	12	12
8	12	..	12	¶2	12	12	..	12	¶2	12
22, 23	..	12	..	12	..	..	12	..	12	..
51	12	12	12	12	12	..	..	..	..	..
51	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12

‡ Students of the third year can take either the Trinity or Michaelmas Term Course.  
¶ Honours Lecture. } Until the course is finished.

FACULTY  
TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
* THIRD YEAR.						
76	† Constitutional Law .. ..	..	12-20	..	..	12-15
75	† Roman Law .. ..	12-20	..	..	12-20	..
78	† Status, Contracts, Torts and Crimes .. ..	5-5	..		..	5-5
FOURTH YEAR.						
74	† Jurisprudence .. .	..	..	12-20	..	..
77	† International Law .. .	..	..	..	..	1-15
79	† The Law of Property, Conveyancing and Interpretation..	..	4-5	4-5	4-5	..
FIFTH YEAR.						
80	† Procedure, Pleading & Evidence	4-5	..	4-5	..	4-5
81	† Equity and Company Law, Bankruptcy, Probate & Divorce		5-5	5-5	5-5	..

\* The first two years of the course are the same as in the Faculty of Arts.

† Some additional lectures will be delivered in all these subjects, at times which will be arranged to suit the convenience of students.

NOTE.—Owing to the recent changes in the curriculum, and the dual system temporarily in force, it may conceivably be necessary to modify somewhat the lecture hours as provided by this time table.

OF LAW.  
OF LECTURES.

refer to the Synopses of Lectures on pp. 120-188.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th.	F.	M.	Tu.	W.	Th.	F.
76	..	12-20	..	..	12-15	..	12-20	..	..	12-15
75	12-20	..	..	12-20	..	12-20	..	..	12-20	..
78	5-5	..	5-5	..	5-5	5-5	..	5-5	..	5-5
74	..	..	12-20	..	..	..	..	12-20	..	..
77	..	..	..	..	1-15	..	..	..	..	1-15
79	..	4-5	4-5	4-5	..	..	4-5	..	4-5	..
80	4-5	..	..	..	4-5	4-5	..	4-5	..	4-5
81	..	5-5	5-5	5-5	..	..	5-5	..	5-5	..

FACULTY OF  
TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
FOURTH YEAR.						
58	Pathology and Practical Pathology ..	11	11	11	11	11
55	Surgery .. .. .	1-15	1-15	1-15	1-15	1-15
55	§ Operative Surgery .. .. .	..	..	..	..	..
	Hospital, with Clinical and Tutorial Surgery .. .. .	..	..	..	..	..
FIFTH YEAR.						
56	Midwifery.. .. .	9	9	9	9	9
57	Gynæcology (during first six weeks of Term) .. .. .	..	..	..	..	..
60, 61	Medical Jurisprudence & Public Health (last four weeks of Trinity Term) ..	..	..	..	..	..
54	Medicine .. .. .	12-15	12-15	12-15	12-15	12-15
63	§ Ophthalmic Medicine and Surgery ..	..	..	2	..	2
62	§ Psychological Medicine .. .. .	..	..	..	..	..
17	§ Applied Logic .. .. .	..	..	11	..	..
	Hospital, with Clinical and Tutorial Medicine .. .. .	..	..	..	..	..

‡ Until the course is completed.



**MEDICINE—(OLD BY-LAWS).  
OF LECTURES.**

**refer to the Synopses of Lectures on pp. 120-188.**

[illegible]

## FACULTY OF TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LEST TERM.				
		M.	Tu.	W.	Th.	F.
FIRST YEAR.						
38	Biology (Zoology) .. ..	11	11	11	11	11
39	Biology (Botany) .. ..	..	..	..	..	..
25, 26	Chemistry (Inorganic) .. ..	12	..	12	..	12
20	Physics .. ..	..	..	..	..	..
43, 44	*Practical Biology (A and B) .. ..	2-4	9-11	2-4	9-11	2-4
31	Practical Chemistry .. ..	..	..	..	..	..
23	*Practical Physics (A and B) .. ..	..	2-5	..	2-5	..
45	Human Anatomy (Introductory) .. ..	..	..	..	..	..
49	* Practical Histology (A and B) .. ..	..	..	..	..	..
SECOND YEAR.						
45	Descriptive Anatomy .. ..	9	9	9	9	9
50	*Physiol. Chemistry (A and B) .. ..	10-12	10-12	10-12	10-12	10-12
28	Organic Chemistry .. ..	..	..	..	..	..
17	Applied Logic .. ..	..	..	12	..	12
49	Physiology (Junior) .. ..	..	..	..	..	..
50	*Experimental Physiology (A and B) .. ..	..	..	..	..	..
48	Dissections .. ..	†10-12	..	†10-12	..	†10-12
THIRD YEAR.						
49	Physiology (Senior) .. ..	12	12	12	12	12
47	Regional Anatomy .. ..	11	11	11	11	11
52	*Pharmacology (A and B) .. ..	..	..	..	..	..
53	Pharmaceutical Chemistry and Botany (Optional for Medical Students) .. ..	..	..	..	..	..
48	Dissections .. ..	†9-11	†9-11	†9-11	†9-11	†9-11
58	General Pathology .. ..	..	..	..	..	..
58	*Practical Pathology (A and B) .. ..	..	..	..	..	..
	*Hospital with Tutorial Surgery (B and A) .. ..	..	..	..	..	..

\* Divided into two sections, A and B, which meet alternately.

† And afternoon.

# MEDICINE—(NEW BY-LAWS). OF LECTURES.

refer to the Synopses of Lectures on pp. 120-183.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th.	F.	M.	Tu.	W.	Th.	F.
39	..	..	..	..	..	..	..	..	..	..
25, 26	..	9	12	9	..	..	..	..	..	..
20	11	..	11	..	11	..	..	..	..	..
43, 44	12	12	..	12	12	..	11	..	11	..
31	9-11	2-4	9-11	2-4	9-11	..	..	..	..	..
23	2-5	..	2-5	..	2-5	..	..	2-5	..	..
45	..	..	..	..	..	..	2-5	..	2-5	..
49	..	..	..	..	..	9	9	9	9	9
	..	..	..	..	..	10-12	10-12	10-12	10-12	10-12
45	9	9	9	9	9	..	..	..	..	..
28	..	..	..	..	..	..	..	..	..	..
49	12	12	12	12	12	12	12	12	12	12
50	10-12	10-12	10-12	10-12	10-12	..	..	..	..	..
48	†10-12	..	†10-12	..	†10-12	†	†	†	†	†
47	..	..	..	..	..	..	..	..	..	..
52	12	12	12	12	12	..	..	..	..	..
53	2-4	2-4	2-4	2-4	2-4	..	..	..	..	..
48	9	..	9	..	9	..	9	..	9	..
58	†9-12	..	†9-12	..	†9-12	..	..	..	..	..
58	..	..	..	..	..	11	11	11	11	11
58	..	..	..	..	..	1.30	1.30	1.30	1.30	1.30
	..	..	..	..	..	to	to	to	to	to
	..	..	..	..	..	3.30	3.30	3.30	3.30	3.30
	..	..	..	..	..	..	..	..	..	..

† Forenoon and afternoon.

‡ And afternoon.

For Fourth and Fifth Years see next page.

## FACULTY OF TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
FOURTH YEAR.						
58	Special Pathology .. .. .	..	..	..	..	..
58	Special Bacteriology .. .. .	11	11	11	11	11
55	Surgery .. .. .	1.15	1.15	1.15	1.15	1.15
55	Operative Surgery .. .. .	..	..	..	..	..
	Hospital, with Clinical Surgery, etc. ..	†9-11	†9-11	†9-11	†9-11	†9-11
54	Medicine .. .. .	..	..	..	..	..
56	Midwifery.. .. .	..	..	..	..	..
	Hospital, with Tutorial Medicine and Out Patients .. .. .	..	..	..	..	..
FIFTH YEAR.						
54	Medicine .. .. .	12	12	12	12	12
57	Gynæcology (first 6 weeks of term) ..	9	9	9	9	9
60, 61	Medical Jurisprudence and Public Health (last 4 weeks of Lent) .. ..	9	9	9	9	9
63	Diseases of the Eye .. .. .	..	..	..	..	..
62	Diseases of the Mind .. .. .	..	..	..	..	..
53	*Posology, etc. (10 lectures) .. ..	..	..	..	..	..
	Hospital, with Tutorial and Clinical Medicine .. .. .	†10-12	†10-12	†10-12	†10-12	†10-12
53	†*Special Therapeutics (15 lectures) ..	..	..	..	..	..
	Diseases of Children .. .. .	..	..	..	..	..
	Diseases of the Skin .. .. .	..	..	..	..	..
	Diseases of the Ear, Nose, and Throat ..	..	..	..	..	..

\* Until the course is finished.

† To commence after the course in Posology.

‡ And afternoon.

MEDICINE—(NEW BY-LAWS.)  
OF LECTURES.

refer to the Synopses of Lectures on pp. 120-188.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th.	F.		Tu.	W.	Th.	F.
58	11	11	11	11	11	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..
55	1.15	1.15	1.15	1.15	1.15	..	..	..	..	..
55	*2.15	2.15	2.15	..	2.15	..	..	..	..	..
	†9-11	†9-11	†9-11	†9-11	†9-11	..	..	..	..	..
54	..	..	..	..	..	12	12	12	12	12
56	..	..	..	..	..	9	9	9	9	9
	..	..	..	..	..	†10-12	†10-12	†10-12	†10-12	†10-12
	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..
60, 61	9	9	9	9	9	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..
53	..	..	..	..	..	9	..	9	..	9
	†10-12	†10-12	†10-12	†10-12	†10-12	†10-12	†10-12	†10-12	†10-12	†10-12
53	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	9	..	9	..	9
	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..

\* Until the course is finished. ‡ And afternoon.

FACULTY  
TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
FIRST YEAR.						
14	Mathematics .. ..	§9, 10	10	§9, 10	10	10
38	Biology (Zoology) .. ..	11	11	11	11	11
39	Biology (Botany) .. ..	..	..	..	..	..
25, 26	Chemistry (Inorganic) .. ..	12	12	12	12	12
20	Physics .. ..	..	..	..	..	..
43, 44	Practical Biology .. ..	2-4	9-11	2-4	9-11	2-4
31	Practical Chemistry .. ..	..	..	..	..	..
23	Practical Physics .. ..	..	..	..	..	..
32	Physiography .. ..	..	..	..	..	..
SECOND YEAR.						
14	Mathematics .. ..	9	9	9	9	9
21	Physics .. ..	..	10	..	10	..
40, 42	Biology .. ..	..	10	..	10	..
28	Chemistry (Organic) .. ..	..	..	..	..	..
33	* Geology .. ..	..	11	..	11	..
36	Practical Geology .. ..	12	..	12	..	..
51	Practical Physiology .. ..	10-12	10-12	10-12	10-12	10-12
51	Physiology .. ..	12	12	12	12	12
40, 42	Practical Biology .. ..	..	2-5	..	2-5	..
23	Practical Physics .. ..	2-5	..	..	..	2-5
31	Practical Chemistry .. ..	2-5	..	2-5	..	2-5
THIRD YEAR.						
35	†* Geology and Palæontology .. ..	..	9	..	9	..
41	Biology .. ..	10	..	10	..	10
51	Practical Physiology .. ..	10-12	10-12	10-12	10-12	10-12
14	Mathematics .. ..	11	11	11	11	11
34	Mineralogy .. ..	..	..	..	..	..
29	Chemistry .. ..	..	..	11	..	..
51	Physiology .. ..	..	..	..	..	..
22, 23	† Physics .. ..	..	2	..	2	..
41	Practical Biology .. ..	2-5	..	2-5	..	2-5
31	† Practical Chemistry .. ..	2-5	..	2-5	..	2-5

\* Excursions every third or fourth Saturday as arranged.    † Practical work at times to be arranged, but with a minimum of 15 hours per week.  
‡ Tutorial Class.  
|| In addition, a special course (No. 46), at times to be arranged.

# OF SCIENCE. OF LECTURES.

refer to the Synopses of Lectures on pp. 120-188.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th.	F.	M.	Tu.	W.	Th.	F.
14	§9, 10	10	§9, 10	10	10	10	10	10	10	10
38	..	..	..	..	..	..	..	..	..	..
39	..	9	12	9	..	..	..	..	..	..
25, 26	11	11	11	11	11	..	..	..	..	..
20	12	12	12	12	12	..	11	..	11	..
43, 44	..	..	..	..	..	2-5	..	2-5	..	2-5
31	2-5	..	2-5	..	2-5	..	..	..	..	..
23	..	2-5	..	2-5	..	..	..	..	..	..
32	..	..	..	..	..	12	12	..	12	12
14	9	9	9	9	9	9	9	9	9	9
21	..	10	..	10	..	..	10	..	10	..
40, 42	..	10	..	10	..	..	..	..	..	..
28	..	..	..	..	..	12	12	12	12	12
33	..	11	..	11	..	..	11	..	11	..
36	..	..	..	..	..	12	..	12	..	..
51	..	..	..	..	..	10-12	10-12	10-12	10-12	10-12
51	12	12	12	12	12	12	12	12	12	12
40, 42	..	2-5	..	2-5	..	..	2-5	..	2-5	..
23	..	..	..	..	..	2-5	..	..	..	2-5
31	2-5	..	2-5	..	2-5	..	..	..	..	..
35	..	9	..	9	..	..	9	..	9	..
41	10	..	10	..	10	10	..	10	..	10
51	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12	10-12
14	11	11	11	11	11	11	11	11	11	11
34	..	12	..	12	..	‡9-11	..	‡9-11	..	‡9-11
29	..	..	11	..	..	..	..	..	..	..
51	..	..	..	..	..	12	12	12	12	12
22, 23	..	2	..	2	..	..	2	..	2	..
41	2-5	..	2-5	..	2-5	2-5	..	2-5	..	2-5
31	2-5	..	2-5	..	2-5	2-5	..	2-5	..	2-5

‡ Practical work.      ‡ Until the course is completed.

DEPARTMENT OF  
CIVIL EN  
TIME TABLE

N.B.—The numbers in the left-hand column refer to the Synopses of

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
FIRST YEAR.						
14	Mathematics .. ..	§9, 10	10	§9, 10	10	10
64	Descriptive Geometry .. ..	..	9	2-5	9	..
66	Applied Mechanics .. ..	..	..	..	..	..
25, 26, 31	} Chemistry (Inorganic) .. ..	12, 2-5	12, 2-5	12	12, 2-5	12, 2-5
20, 23	Physics .. ..	..	..	..	..	..
69	Engineering Drawing .. ..	11-1	11-1	..	11-1	..
SECOND YEAR.						
14	Mathematics .. ..	9	9	9	9	9
65	Mechanical Engineering I. ..	10	..	10	..	10-1
21, 23	Physics II... ..	2-5	10	..	10	2-5
70	Surveying I. .. ..	..	11	..	11	..
67	Civil Engineering I. .. ..	..	12	..	12	..
69	Engineering Drawing and Design ..	..	2-5	..	2-5	..
THIRD YEAR.						
67	Civil Engineering II. .. ..	10	..	10	..	10
67	Civil Engineering III. .. ..	..	10, 2-5	..	10, 2-5	..
69	Engineering Drawing and Design ..	2-5	..	2-5	..	2-5
71	Architecture and Building Con- struction .. ..	..	..	..	..	..
33	Geology I. .. ..	12	11	12	11	..
70	Surveying II. .. ..	..	..	..	..	..

‡ Tutorial Class.



ENGINEERING.  
ENGINEERING.  
OF LECTURES.

Lectures on pp. 120-188. The Laboratory Classes are in block type.

REFERENCE NUMBER.	. TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th	F.	M.	Tu.	W.	Th.	F.
14	§9, 10	10	§9, 10	10	10	10	10	10	10	10
64	..	9	..	9	..	..	..	..	..	..
66	..	..	..	..	..	12	..	12, 2-5	..	12
25, 26, 31	11	11	11	11	11	..	2-5	..	2-5	..
20, 23	12	12, 2-5	12	12, 2-5	12	..	11	..	11	..
69	2-5	..	..	..	2-5	2-5	..	..	..	2-5
14	9	9	9	9	9	9	9	9	9	9
65	10	..	10	..	10-1	10	..	10	..	10-1
21, 23	..	10	..	10	..	2-5	10	..	10	2-5
70	..	11	..	11	..	..	..	..	..	..
67	..	..	..	..	..	..	..	..	..	..
69	..	2-5	..	2-5	..	..	2-5	..	2-5	..
67	10	2-5	10	2-5	10	10	..	10	..	10
67	..	10	..	10	..	12	10	12	10	12
69	2-5	..	..	..	2-5	2-5	2-5	..	2-5	2-5
71	11	..	11	..	..	11	..	11	..	..
33	..	11	..	11	..	12	11	12	11	..
70	..	..	..	..	..	9	..	9	..	9

DEPARTMENT OF  
MINING AND  
TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
FIRST YEAR.						
14	Mathematics .. .. .	§9, 10	10	§9, 10	10	10
64	Descriptive Geometry .. .. .	..	9	2-5	9	..
66	Applied Mechanics .. .. .	..	..	..	..	..
25, 26, 31	Chemistry I. (Inorganic) .. .. .	12, 2-5	12, 2-5	12	12, 2-5	12, 2-5
20, 23	Physics .. .. .	..	..	..	..	..
69	Engineering Drawing .. .. .	11-1	11-1	..	11-1	..
SECOND YEAR.						
21	Physics II. .. .. .	..	10	..	10	..
33	Geology I. .. .. .	12	11	12	11	..
65	Mechanical Engineering I.—A .. .. .	10	..	10	..	10-1
69	Engineering Drawing and Design .. .. .	11	..	2-5	..	..
67	Civil Engineering I. .. .. .	..	12	..	12	..
31	Chemistry (Quantitative Analysis) .. .. .	-5	2-5	..	2-5	2-5
THIRD YEAR.						
34	Geology II.—A .. .. .	9	9	9	9	..
	Mineralogy .. .. .	..	..	..	..	..
31	Practical Metallurgy and Assaying I... .. .	..	..	..	..	..
67	Civil Engineering III.—A .. .. .	..	10, 2-5	..	10, 2-5	..
69	Engineering Drawing and Design .. .. .	2-5	..	..	..	2-5
70	Surveying I. and III. .. .. .	..	11	..	11	..
71	Building Construction—A .. .. .	..	..	..	..	..
65	Mechanical Engineering II.—A .. .. .	12	12	12, 2-5	12	12
68	Electrical Engineering I.—A .. .. .	..	..	11	..	11
FOURTH YEAR.						
72	Mining .. .. .	9	9	9	9	9
30	Metallurgy .. .. .	10	..	10	..	10
31	Practical Metallurgy and Assaying II... .. .	11-5	10-4	..	10-4	11-5
69	Mining and Metallurgical Design .. .. .	..	..	11-5	..	..

## ENGINEERING.

## METALLURGY.

## OF LECTURES.

refer to the Synopsis of Lectures on pp. 121-188.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th.	F.	M.	Tu.	W.	Th.	F.
14	9, 10	10	9, 10	10	10	10	10	10	10	10
64	..	9	..	9	..	..	..	..	..	..
66	..	..	..	..	..	12	..	12, 2-5	..	12
25, 26, 31	11	11	11	11	11	..	2-5	..	2-5	..
20, 23	12	12, 2-5	12	12, 2-5	12	..	11	..	11	..
69	2-5	..	..	..	2-5	2-5	..	..	..	2-5
21	2-5	10	..	10	2-5	..	10	..	10	..
33	..	11	..	11	..	12	11	12	11	..
65	..	..	..	..	..	10	..	10	..	10-1
69	9-1	..	11-1	..	9-1	..	..	2-5	..	..
67	..	..	..	..	..	..	..	..	..	..
31	..	2-5	2-5	2-5	..	2-5	2-5	..	2-5	2-5
34	9-11	9 12	9-11	9 12	9-11	9	..	9	..	..
31	..	..	..	..	..	..	10-5	..	10-5	..
67	..	10	..	..	..	..	..	..	..	..
69	2-5	..	..	..	2-5	10-1	..	10-1	..	10-1
70	..	11	..	11	..	..	9	..	9	..
71	11	..	11	..	..	..	..	..	..	..
65	..	..	..	..	..	..	..	..	..	..
68	..	2-5	..	2-5	..	..	..	..	..	..
72	9	9	9	9	9	..	..	..	..	..
30	10	..	10	..	10	..	..	..	..	..
31	11-5	10-4	..	10-4	11-5	9-4	9-4	..	9-4	9-4
69	..	..	11-5	..	..	..	..	9-1	..	..

DEPARTMENT OF  
MECHANICAL AND  
TIME TABLE OF

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		Mon.	Tues.	Wed.	Thur.	Fri.
FIRST YEAR.						
14	Mathematics .. .. .	§9, 10	10	§9, 10	10	10
64	Descriptive Geometry .. .. .	..	9	2-5	9	..
66	Applied Mechanics .. .. .	..	..	..	..	..
25, 26, 31	Chemistry .. .. .	12, 2-5	12, 2-5	12	12, 2-5	2-5, 12
20, 23	Physics .. .. .	..	..	..	..	..
69	Engineering Drawing .. .. .	11-1	11-1	..	11-1	..
SECOND YEAR.						
14	Mathematics .. .. .	9	9	9	9	9
65	Mechanical Engineering I. .. .. .	10	..	10	..	10-1
21, 23	Physics II. .. .. .	2-5	10	..	10	2-5
70	Surveying I. .. .. .	..	11	..	11	..
67	Civil Engineering I. .. .. .	..	12	..	12	..
69	Engineering Drawing and Design .. .. .	11-1	..	11-1	..	..
	Mechanical Workshop Practice .. .. .	..	2-5	2-5	2-5	..
THIRD YEAR.						
14	Mathematics .. .. .	..	11	..	11	..
67	Civil Engineering II.—A .. .. .	10	..	10	..	10
68	Electrical Engineering I. .. .. .	..	..	11	..	11
65	Mechanical Engineering II. .. .. .	12	2	12, 2-5	2	12
67	Civil Engineering III.—A .. .. .	..	10	..	10	..
31	Chemistry .. .. .	2-5	..	..	..	2-5
69	Engineering Drawing and Design .. .. .	..	3-5	..	3-5	..
FOURTH YEAR.						
68	Electrical Engineering II. .. .. .	..	..	11	..	11
65	Mechanical Engineering III. .. .. .	..	11	..	11	..
68	Electrical Engineering Laboratory .. .. .	10-1	..	10-1	2-5	10-1
69	Mechanical and Electrical Design .. .. .	2-5	2-5	..	..	2-5

‡ Tutorial Class.

ENGINEERING.  
ELECTRICAL.  
LECTURES.

refer to the Synopses of Lectures on pp. 120-188

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	Mon.	Tu.	Wed.	Th.	Fri.	Mon.	Tu.	Wed.	Th.	Fri.
14	§9, 10	10	§9, 10	10	10	10	10	10	10	10
64	..	9	..	9	..	..	..	..	..	..
66	..	..	..	..	..	12	..	2-5, 12	..	12
25, 26, 31	11	11	11	11	11	..	2-5	..	2-5	..
20, 23	12	12, 2-5	12	12, 2-5	12	..	11	..	11	..
69	2-5	..	..	..	2-5	2-5	..	..	..	2-5
14	9	9	9	9	9	9	9	9	9	9
65	10	..	10	..	10-1	10	..	10	..	10-1
21, 23	..	10	..	10	..	2-5	10	..	10	2-5
70	..	11	..	11	..	..	..	..	..	..
67	..	..	..	..	..	..	..	..	..	..
69	2-5	..	..	..	2-5	11-1	11-1	11-1	11-1	..
	..	2-5	2-5	2-5	..	..	2-5	2-5	2-5	..
14	..	11	..	11	..	..	..	..	..	..
67	..	..	..	..	..	..	..	..	..	..
68	9	9	9	9	9	..	..	..	..	..
	10-12	10-12	10-12	10-12	10-12	..	..	..	..	..
65	12	12	12	12	12	..	..	..	..	..
	2-5	12	2-5	12	2-5	..	..	..	..	..
67	..	10	..	..	..	..	..	..	..	..
31	..	..	..	..	..	..	..	..	..	..
69	..	2-5	..	2-5	..	..	..	..	..	..
68	10	..	10	..	10	9	..	9	..	9
65	..	11	..	11	..	..	..	..	..	..
68	11-1	..	11-1	2-5	11-1	10-1	..	10-1	2-5	10-1
69	2-5	2-5	..	..	2-5	2-5	2-5	..	..	2-5

DEPARTMENT  
TIME TABLE

N.B.—The numbers in the left-hand column

REFERENCE NUMBER.	SUBJECT.	LENT TERM.				
		M.	Tu.	W.	Th.	F.
FIRST YEAR.						
45, 46	Anatomy (Descriptive), including					
	Anatomy of Teeth .. .. .	9	9	9	9	9
20, 23	Physics and Practical Physics .. .. .	..	2-5	..	2-5	..
25, 26	Chemistry and Practical Chemistry {	12	12	12	12	12
31		10-12	10-12	10-12	10-12	10-12
31	Practical Metallurgy .. .. .	..	..	..	..	..
48	Dissections (2 terms) .. .. .	..	..	..	..	..
50	Practical Histology .. .. .	..	..	..	..	..
	Mechanical Laboratory .. .. .	2-5	..	2-5	..	2-5
SECOND YEAR.						
49	Physiology (Trin. & Mich.) .. .. .	..	..	..	..	..
50	Physiology—Practical (Lent & Trin.) ..	..	..	..	..	..
73	Surgical Dentistry .. .. .	..	..	5	..	..
73	Clinical Dentistry .. .. .	..	5	..	..	..
73	Mechanical Dentistry .. .. .	5	..	..	5	..
48	Dissections (2 terms) .. .. .	9-11	..	9-11	..	9-11
47	Regional Anatomy .. .. .	11	..	11	..	11
	Dental Hospital .. .. .	2-5	2-5	2-5	2-5	2-5
THIRD YEAR.						
49	Physiology (Lent) .. .. .	12	12	12	12	12
73*	Surgical Dentistry .. .. .	..	..	..	..	..
73*	Clinical Dentistry .. .. .	..	..	..	..	..
73*	Mechanical Dentistry .. .. .	..	..	..	..	..
53	Materia Medica, &c. .. .. .	..	9	..	9	..
59	General Pathology .. .. .	..	..	..	..	..
59	Practical Pathology .. .. .	11	11	11	11	11
	Dental Hospital .. .. .	2-5	2-5	2-5	2-5	2-5
FOURTH YEAR.						
55	Surgery and Special Dental Surgery ..	1-15	1-15	1-15	1-15	1-15
	Anæsthetics .. .. .	..	..	5	..	..
	Special Clinical Courses—					
	(a) Medicine .. .. .	..	3	..	..	..
	(b) Surgery .. .. .	..	..	..	3	..
	Dental Hospital .. .. . {	10-12	..	10-12	..	10-12
		2-5	10-12	2-4	10-12	2-5
	(Special Dental Clinics) .. .. .	..	..	4	..	..

TIME TABLE FOR

53	Materia Medica .. .. .	..	..	..	..	..
31	Practical Chemistry .. .. .	10-12	10-12	10-12	10-12	10-12
25	Chemistry (Introductory) .. .. .	12	12	12	12	12
42	Botany .. .. .	..	..	..	..	..
26	Chemistry (Metals) .. .. .	..	..	..	..	..
28	Chemistry (Organic) .. .. .	..	..	..	..	..

\* Times to be arranged.

OF DENTISTRY.  
OF LECTURES.

refer to the Synopses of Lectures on pp. 120-188.

REFERENCE NUMBER.	TRINITY TERM.					MICHAELMAS TERM.				
	M.	Tu.	W.	Th.	F.	M.	Tu.	W.	Th.	F.
45, 46	..		..	..	..	..	..	12	..	..
20, 23	12	12	12	12	12	..	11	..	11	..
25, 26	} 11	11	11	11	11	..	..	..	..	..
31						..	2-5	..	2-5	..
31	9-11	9-11	9-11	9-11	9-11	9	9	9	9	9
48	..	..	..	..	..	10-12	10-12	10-12	10-12	10-12
50	2-5	2-5	2-5	2-5	2-5	2-5	..	2 5	..	2-5
49	12	12	12	12	12	12	12	12	12	12
50	10-12	10-12	10-12	10-12	10-12	..	..	..	..	..
73	..	..	5	..	..	..	..	5	..	..
73	..	5	..	..	..	..	5	..	..	..
73	5	..	..	5	..	5	..	..	5	..
48	2-5	..	..	..	2-5	..	..	..	..	..
47	..	..	..	..	..	..	..	..	..	..
	..	2-5	2-5	2-5	..	2-5	2-5	2-5	2-5	2-5
49	..	..	..	..	..	..	..	..	..	..
73*	..	..	..	..	..	..	..	..	..	..
73*	..	..	..	..	..	..	..	..	..	..
73*	..	..	..	..	..	..	..	..	..	..
53	..	..	..	..	..	..	..	..	..	..
59	..	..	..	..	..	11	11	11	11	11
59	..	..	..	..	..	..	..	..	..	..
	10-5	2-5	10-5	2-5	10-5	2-5	2-5	2-5	2-5	2-5
55	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..
	..	3	..	..	..	..	3	..	..	..
	..	..	..	3	..	..	..	..	3	..
	} 10-5	10-1	10-4	10-1	10-5	10-5	10-1	10-4	10-1	10-5
	..	..	4	..	..	..	..	4	..	..

PHARMACY STUDENTS.

53	9	..	9	..	9	9	..	9	..	..
31	..	..	..	..	..	..	..	..	..	..
25	..	..	..	..	..	..	..	..	..	..
42	..	9	12	9	..	..	..	..	..	..
26	11	11	11	11	11	..	..	..	..	..
28	..	..	..	..	..	12	..	12	..	12

\* Times to be arranged.

## FACULTY OF ARTS.—EVENING LECTURES.

## \* TIME TABLE.

N.B.—The numbers in the left-hand column refer to the Synopses of Lectures on pp. 120-188.

REFERENCE NUMBER.	SUBJECT.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.
<b>FIRST YEAR.</b>						
1	Latin .. .. .	7	..	..	8	8
7	French (Junior) .. .. .	..	8	8	..	..
14	Mathematics .. .. .	..	7	..	..	7
11	English .. .. .	9	..	..	..	..
24	† Chemistry .. .. .	..	6	..	..	..
20	† Physics .. .. .	..	6	..	..	..
32	† Physiography .. .. .	..	..	..	6	..
<b>SECOND YEAR.</b>						
15, 16	Logic and Mental Philosophy .. .. .	..	7	8	7	..
2	Latin .. .. .	8	..	..	..	7 & 9
18, 19	History .. .. .	9	8	..	8	..
8	French (Senior) .. .. .	..	9	7	..	8
14	Mathematics, as arranged .. .. .	..	..	..	..	..
12	English .. .. .	7	..	9	9	..
<b>THIRD YEAR.</b>						
3	Latin .. .. .	..	8	..	9	9
14	Mathematics, as arranged .. .. .	..	..	..	..	..
8	French (Senior) .. .. .	..	9	7	..	8
13	English .. .. .	8	..	9	..	7
15, 16	Logic and Mental Philosophy .. .. .	..	7	8	7	..
18, 19	History .. .. .	9	8	..	8	..

\* This time table is subject to alteration.

† Chemistry and Physics and Physiography are taken in alternate years. In 1905 Lectures are given in Chemistry ; in 1906 in Physics and Physiography.



## REGULATIONS FOR RESEARCH STUDENTS IN THE SCIENTIFIC LABORATORIES.

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1. Research students may be admitted to the University laboratories from year to year on the recommendation of the head of the department in which they propose to work.

2. A research student in any University laboratory shall be under the control of the head of the department as regards the use of the laboratory apparatus and materials. The Professor, as director of the laboratory, shall have the right to make himself acquainted with the character and progress of the work done by any research student working in his laboratory.

3. Research students may work in the University laboratories during laboratory hours in Term time, and at such other times as may be arranged by the Professor in charge.

4. Each research student shall pay to the University a fee of five guineas per Term for the expense of material, etc. ; such fee to be paid to the credit of the maintenance vote of the department. All expensive apparatus or material required for special investigations shall be purchased by the research student.

The Professor in charge shall be the sole judge of what apparatus and material should be provided by the University or purchased by the student.

The University should be provided with printed copies of all scientific papers published by research students.

# LECTURE SUBJECTS FOR 1905-6.

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## LECTURES.

THE following regulations have been passed by the Senate :—

### NON-MATRICULATED STUDENTS.

It shall be open to any non-matriculated student, who has attended the full courses of lectures upon any subject, to compete for Honours or Pass in the regular examinations upon his subject, and to have his name published and recorded in the regular class lists, with a distinguishing mark; but he shall be incapable of holding any scholarship or receiving any prize of those already established for students proceeding to a Degree.

Each such student shall be entitled to receive a certificate of attendance upon the lectures or laboratory practice in the subjects which he has selected, and proficiency therein, as ascertained by the regular and ordinary examinations within the University.

The above regulations do not apply to the lectures and examinations in the Faculty of Medicine.

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The following regulation has been adopted by the Faculty of Science :—“There shall be only one standard for Honours in Scientific subjects, viz., that adopted in the Faculty of Science.”

*N.B.—The numbers refer to the Time Tables of Lectures on pages 98-118.*

## CLASSICS AND MODERN LANGUAGES.

Subjects selected for Lectures and Examinations :—

### LATIN—1905.

1. *First Year, Pass.*—Cicero pro Milone and pro Archia; Virgil, Æneid I. and II. *Add. for Honours.*—Cicero de Oratore, Book I.; Virgil, Æneid III. to VI. Roman History to the Tribune of Ti. Gracchus.

2. *Second Year, Pass.*—Cicero, Second Philippic; Sallust, Catiline; Horace, Satires (selections), and Epistles, Book I. *Add. for Honours.*—Watson's Select Letters of Cicero, Parts 1 and 2; Plautus, Captivi and Trinummus. *Pass and Honours.*—Roman History from the Tribune of Ti. Gracchus to the battle of Actium.

3. *Third Year, Pass.*—Tacitus, Histories I. and II.; Cicero, Tusculanæ Disputationes, I. and II.; Juvenal (selections). Roman History from the battle of Actium to the death of Marcus Aurelius. *Add. for Honours.*—Tacitus, Histories III., IV., V.; Lucretius (selections); Lucan (selections). Roman Literature.

#### LATIN—1906.

*First Year, Pass.*—Livy, Book IX.; Virgil, Georgics (selections). *Add. for Honours.*—Cicero, Brutus; Virgil, Æneid VII., VIII., IX., X. Roman History to the Tribune of Ti. Gracchus.

*Second Year, Pass.*—Watson's Select Letters of Cicero, parts 4 and 5; Horace, Odes. *Add. for Honours.*—Sallust, Jugurtha; Cicero, pro Lege Manilia; Catullus (selections); Terence, Phormio. *Pass and Honours.*—Roman History from the Tribune of Ti. Gracchus to the battle of Actium.

*Third Year, Pass.*—Tacitus, Annals I. and II.; Cicero, de Finibus, III. and IV.; Martial, select Epigrams (*Stephenson*), Books IV. to XII. Roman History from the battle of Actium to the death of Marcus Aurelius. *Add. for Honours.*—Tacitus, Annals III. to VI.; Lucretius (selections); Horace, Epistles; Roman Literature.

#### GREEK.

There will be three Pass classes in Greek. Students of the First Year reading for a Pass must attend the First Year class; but candidates for Honours in the First Year must attend the Second Year class, taking also the additional subjects prescribed for Honours.

Students of the Second Year reading for a Pass must attend the Second Year class; candidates for Honours in the Second Year must attend the Third Year class, taking the additional subjects prescribed for Honours. Those who, having read for Honours in the First Year, are not candidates for Honours in the Second Year, must attend the Third Year Pass class.

Students of the Third Year must attend the Third Year classes.

The lectures will be illustrated, so far as is desirable, by diagrams, lantern slides, and such other means as may prove feasible.

#### GREEK—1905.

4. *First Year, Pass.*—Lysias, Orations (selections); Euripides, Iphigenia in Tauris; Greek History to 404 B.C.; Greek Composition and Unseen Translation.

5. *Second Year, Pass.*—Thucydides, Book VI.; Aristophanes, Peace; Sophocles, Œdipus Rex; Greek History to 404 B.C.; Unseen Translation.

*First Year, Honours.*—As *Second Year, Pass*, with Xenophon, Hellenica, Books IV. to VII., and History of the Period 404 to 362 B.C.; Greek Composition.

6. *Third Year, Pass.*—Homer, Iliad 16, 18, 22-24; Herodotus, Book VI.; Sophocles, Œdipus Rex; Greek History, 404-323 B.C.; Unseen Translation.

*Second Year Honours.*—As *Third Year, Pass*, with Aristotle, Poetics; Lectures on the Greek Theatre and History of the Greek Drama; Greek Composition.

*Additional for Third Year Honours.*—The Homeric Hymns; General Paper; Unseen Translation.

#### GREEK—1906.

*First Year, Pass.*—Demosthenes, Philippic I., Olynthiacs, I.-III.; Euripides, Orestes; Greek History to 404 B.C.; Greek Composition and Unseen Translation.

*Second Year, Pass.*—Thucydides, Books VII. and VIII.; Aristophanes, Birds; Sophocles, Trachiniae; Greek History to 404 B.C.; Unseen Translation.

*First Year, Honours.*—As *Second Year, Pass*, with Greek Lyric poetry (selections), and Greek Composition.

*Third Year, Pass.*—Herodotus, Book V.; Homer, Iliad, Books 1, 3, 7-11; Æschylus, Seven against Thebes; Greek History, 404-323 B.C.; Unseen Translation.

*Second Year, Honours.*—As *Third Year, Pass*, with Lectures on the History of Federal Government in Greece (with History of the Achæan League—Polybius), and Greek Composition.

*Additional for Third Year, Honours.*—Theocritus; General Paper; Unseen Translation.

## CLASSICS.

## BOOKS RECOMMENDED\*—

- Lewis and Short's Latin Dictionary (Clarendon Press)  
 Roby's Latin Grammar (Macmillan).  
 Gildersleeve and Lodge's Latin Grammar.  
 Liddell and Scott's Greek Lexicon.  
 Goodwin's or Hadley and Allen's Greek Grammar.  
 Comparative Grammar of Greek and Latin, by Victor Henry, translated by R. T. Elliott; or, Giles' Manual of Comparative Philology for Classical Students (Macmillan).  
 Rutherford's First Greek Grammar.  
 Thompson, Syntax of Attic Greek.

## ANCIENT HISTORY—

- Mommsen's History of Rome, translated by Dickson (Bentley).  
 Mommsen, The Provinces under the Roman Empire.  
 Greenidge's Roman Public Life.  
 Greenidge's History of Rome (Methuen).  
 How and Leigh's History of Rome (Longmans).  
 Pelham's Outlines of Roman History.  
 Bury's Student's Roman Empire (Murray).  
 Strachan-Davidson, Cicero. Warde Fowler, Julius Cæsar.  
 Grote's History of Greece.  
 Greenidge, A. H. J., Handbook of Greek Constitutional History (Macmillan).  
 Bury's History of Greece (Macmillan).

## ANCIENT ATLAS—

- Atlas Antiquus, Kiepert (Berlin).

## GREEK AND ROMAN LITERATURE—

- Teuffel's History of Roman Literature, translated by Warre (Bell).  
 History of Roman Literature, Cruttwell.  
 Roman Poets of the Republic, Sellar.  
 Roman Poets of the Augustan Age, Sellar.  
 Virgil, Sellar.  
 Mackail's Latin Literature.  
 History of Ancient Greek Literature, Murray or Mahaffy.  
*Editions of Latin Authors.*

## FOR PASS STUDENTS :

- Cicero, 2nd Philippic, *J. E. B. Mayor* (Macmillan), or *Peskett* (Cambridge); pro Milone, *Reid* (Cambridge), or *Colson* (Macmillan); pro Sestio, *Holden* (Macmillan); pro Murena, *Heitland* (Cambridge); in Catilinam, *Wilkins* (Macmillan); pro Lege Manilia, *Wilkins* (Macmillan); Select Letters (*Text, only*), *Watson* (Oxford); pro Archia, *Reid* (Cambridge); de Provinciis Consularibus (Baiter and Kayser); de Finibus (Baiter and Kayser). Tusculanæ Disputationes (Baiter and Kayser). Selected Letters, *Tyrrell* (Macmillan).  
 Horace, Odes, *Wickham* (Oxford), or *Page* (Macmillan); Satires, *Palmer* (Macmillan); Epistles, *Wilkins* (Macmillan).

\* Students are strongly recommended to order as early as possible all books that will be needed in the course of the year.

Juvenal, *Pearson & Strong* (Oxford), or *Hardy* (Macmillan), or *Duff* (Cambridge).

Livy (text, in 8 parts, sold separately) *Madvig*; Book II., *Stephenson* (Macmillan); Books XXI., XXII. (text and notes), *Capes* (Macmillan); Book XXI. (Bell); Book XXVI., *Nicholls* (Angus & Robertson, Sydney); Book V., *Whibley* (Pitt Press); Book IX., *Stephenson* (Pitt Press).

Lucretius, Book I.-III., *Lee* (Macmillan).

Lucretius, Book V., *Duff* (Cambridge).

Pliny, Selected Letters, *Prichard & Bernard* (Clarendon Press).

Sallust, *Jugurtha*, *Summers*; *Catiline*, *Summers* (Pitt Press); *Catilina*, *Cook* (Macmillan).

Martial, Select Epigrams, *Stephenson* (Macmillan).

Tacitus, Annals, Books I. to IV., *Furneaux's* abridged edition; Histories, Books I., II., and Books III., IV., V., *Godley* (Macmillan).

Virgil, *Sidgwick* (each book sold separately, Cambridge), or *Georgics*, *Page* (Macmillan) and *Æneid*, *Page* (Macmillan).

#### FOR STUDENTS READING FOR HONOURS—

Cicero, *de Finibus* (Critical edition, Latin Notes), *Madvig*; Letters (select), *Watson* (Oxford); Letters, *Tyrrell* (Longmans); Philippics, *King* (Oxford); *de Oratore*, *Wilkins* (Oxford); *de Claris Oratoribus* (text and German Notes), *Jahn* or *Piderit*; or *Kellogg* (Ginn & Co.); Orator, *Sandys* (Cambridge).

Catullus, *Ellis* (Oxford), or *Simpson* (Macmillan).

Horace, Odes, Satires and Epistles, *Wickham* (Oxford); or Satires, *Palmer* (Macmillan); Epistles, *Wilkins* (Macmillan).

Juvenal, *Mayor* (Macmillan).

Lucan, *Haskins* (Bell).

Lucretius, *Munro* (Bell).

Plautus, *Captivi*, *Lindsay*, or *Hallidie* (Macmillan); *Trinummus*, *Grey* (Cambridge).

Quintilian, Book X., *Peterson* (Clarendon Press).

Tacitus, Annals, I.-VI., *Furneaux*, larger edition (Oxford); Histories, *Spooner* (Macmillan); *Germania* and *Agricola*, *Furneaux* (Oxford); *Dialogus de Oratoribus*, *Gudeman* (Ginn & Co.), or *Peterson* (Oxford).

Terence, *Wagner* (Bell); *Phormio*, *Bond & Walpole* (Macmillan).

Virgil, *Conington* (Bell).

#### *Editions of Greek Authors.*

Æschylus, *Seven Against Thebes*, ed. *A. W. Verrall* (Macmillan), 7/6, or school ed. 2/6, ed. *Verrall & Bayfield*.

Aristophanes, *Clouds*, *Birds*, *Acharnians*, *Frogs*, *Knights*, *Peace*, *Merry* (Oxford).

Aristotle, *Athanaion Politeia*, text and notes, *Kenyon*; translation, *Kenyon* (Bell); *Poetics*, text, notes and translation, ed. *Butcher*.

Demosthenes, *Orations against Philip*, *Abbott & Matheson* (Oxford); (Vol. I. contains Phil. I. and Olynth. I. to III. Vol. II. contains De Pace, Phil. II., De Chers., and Phil. III.).

Euripides, *Orestes*, ed. *Wedd* (Pitt Press).

Herodotus, translation by Rawlinson, with abridged notes, ed. Grant, 2 vols. (Murray); Book VIII., text and notes, *Shuckburgh* (Pitt Press); Book VI., ed. *J. Strachan* (Macmillan); Book V., text and notes, ed. *Shuckburgh* (Pitt Press).

Homer, *Iliad*, *Monro* (Oxford); or *Leaf & Bayfield* (Macmillan); *Odyssey*, *Merry* (Oxford); larger edition, Books I.-XII., *Merry and Riddell*; Books XII.-XXIV., *Monro* (Clarendon Press). Introduction to Homer, *Jebb* (Maclehose, Glasgow); Homer and the Epic, *A. Lang* (Longmans); Companion to the *Iliad*, *Leaf* (Macmillan); Homeric Grammar, *Monro* (Oxford); Homeric Hymns, ed. *T. W. Allen* (Macmillan); *Iliad*, trans. *Lang, Leaf & Myers* (Macmillan); Homeric Hymns, trans. *Lang* (G. Allen).

Polybius, *History of Achæan League* (selections), ed. *Capes* (Macmillan).

Sophocles, in single plays, *Jebb* (Rivington); *Antigone*, *Jebb's* large edition abridged by *Shuckburgh* (Pitt Press), price, 4/-; *Œdipus Rex*, the same.

Theocritus, ed. *Cholmeley* (Bell); trans. *Lang* (Golden Treasury Series—Macmillan).

Thucydides, Book I., *Forbes* (Oxford); II., *Marchant* (Macmillan), or *Shilleto* (Bell); III., *Spratt* (Cambridge); IV. and V., *Graves* (Macmillan); VI., VII., *Marchant* (Macmillan); VIII., *Tucker* (Macmillan). (Translation and Notes), *Jowett* (Oxford).

Xenophon, *Hellenica*, text only, Teubner series or Oxford Classics.

Greek Lyric Poets, *Smyth* (Macmillan); Selections, ed. *H. M. Tyler* (Ginn & Co.).

## FRENCH.

Students in Arts may take the Junior French course in their First Year, and the Senior French course in their Second Year; but students who have already passed in the Senior course in their Second Year may, if the time table permit, take a second Senior course in their Third Year, along with such additional work as may be prescribed.

## FRENCH—1905.

7. *Junior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. De Vogüé, *Cœurs Russes* (Macmillan); Scribe, *Le Verre d'Eau* (Pitt Press); Molière, *Le Misanthrope* (Macmillan). Add. for Honours.—Pages choisies de St. Simon (Ginn & Co.); Hugo, *Ruy Blas* (Bévenot, Macmillan); Historical Grammar (*Darmesteter*).

8. *Senior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. History of Literature in the 17th Century, *Choix de Lettres du XVII<sup>e</sup> Siècle* (ed. Lanson, *Hachette*); Corneille, *Scènes Choies* (ed. Petit de Julleville, *Hachette*); Pages Choies de St. Simon (*Ginn & Co.*); Molière, *Les Femmes Savantes* (*Macmillan*); La Bruyère, *Caractères* (*Hachette*). *Add. for Third Year Students.*—Boileau, *Œuvres Poétiques* (*Hachette*). *Add. for Honours.*—Clédat, *Chanson de Roland* (*Garnier frères*); Joinville, *Histoire de St. Louis* (*N. de Wailly, Hachette*); The Literature of the Middle Ages.

## FRENCH—1906.

*Junior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. Sand, *La Petite Fadette* (*Rivingtons*); Racine, *Britannicus* (*Macmillan*); Brueys and Malaprat, *Le Grondeur* (*Clarendon Press*). *Add. for Honours.*—Rostand, *L'Aiglon* (*Charpentier et Fasquelle*); Voltaire, *Extraits en Prose* (*Hachette*); Historical Grammar (*Darmesteter*).

*Senior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. History of Literature in the 18th Century; Rousseau, *Extraits en Prose* (*Hachette*); Voltaire, *Extraits en Prose* (*Hachette*); Lesage, *Pages Choies* (*Colin*); Beaumarchais, *Pages Choies* (*Colin*); Piron, *La Métromanie* (*Cam. University Press*). *Add. for Third Year Students.*—*Choix de Lettres du XVIII<sup>me</sup> Siècle* (ed. Lanson, *Hachette*). *Add. for Honours.*—Hatzfeld et Darmesteter, *Morceaux choies des écrivains du XVI<sup>e</sup> Siècle* (*Delagrave*); Rabelais, *Pages Choies* (*Colin*); Literature of the 16th Century.

## GERMAN.

Regulations similar to those in force for the French classes hold good for the German classes, with the further proviso that, if the time table permit, students who have not taken the Junior course in German in their First Year may take it in their Second, and the Senior course in their Third Year.

## GERMAN—1905.

9. *Junior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. Schiller, *Wallenstein*, 1 and 2 (*Bell*); Sudermann, *Es Lebe das Leben* (*Cotta'sche Buchhandlung, Nachfolger, Berlin*). *Add. for Honours.*—Spielhagen, *Auf der Düne* (*Staackmann, Leipzig*); Scheffel, *Der Trompeter von Säckingen* (*Macmillan*); Historical Grammar (*Behagel, adapted Trechmann*).



10. *Senior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. History of Literature, the Classical Period; Lessing, *Litteraturbriefe* (*Hachette*); Iffland, *Die Hagestolzen* (*Reklam*); Klopstock, *Oden* (ed. *Düntzer, Brockhaus*); Goethe, *Faust*, Part I. (*Rivingtons*); Richter, *Der Kleine Schulmeister Wuz* (*Reklam*). *Add. for Third Year Students.*—Schiller, *Wallenstein*, all three parts (*G. Bell & Sons*). *Add. for Honours.*—Middle German Primer (*Clarendon Press*); Gudrun, *Deutsche Classiker des Mittelalters* (*Brockhaus*).

## GERMAN—1906.

*Junior Course, Pass.*—Composition: Passages for Translation (*Angus & Robertson*). Dictation. Hauff, *Das Bild des Kaisers* (*Pitt Press*); Goethe, *Iphigenie auf Tauris* (*Clarendon Press*); Heine, *Lieder und Gedichte* (*Golden Treasury*). *Add. for Honours.*—Lessing, *Minna von Barnhelm* (*Clarendon Press*); Sybel, *Prinz Eugen von Savoyen* (*Pitt Press*); *Historical Grammar* (*Behagel, adapted Trechmann*).

*Senior Course, Pass.*—Composition; passages for Translation (*Angus & Robertson*). Dictation. History of Literature, The Romantic School. Heine, *Ueber Deutschland* (any edition); Arnim, *Die Kronenwächter* (*Spemann*); Buchheim, *Balladen und Romanzen* (*Macmillan*); Immermann, *Der Overhof* (*Pitt Press*); Freytag, *Die Journalisten* (*Pitt Press*). *Add. for Third Year Students.*—Hoffmann, *Kater Murr* (*Reclam*). *Add. for Honours.*—*Volksbuch von Faust* (*Niemeyer, Halle*); *Liederbuch aus dem XVI<sup>ten</sup> Jahrhundert* (*Brockhaus*). Literature of the Reformation Period.

## ENGLISH—1905.

11. *First Year.*—Lectures on English Language, Composition, and Style. Chaucer, *Selections from the Canterbury Tales* (ed. *Carson, Macmillan*); Shakespeare, *King Lear* (*Clarendon Press*).

12. *Second Year.*—Lectures on the chief writers from Chaucer to Milton; special subject, History of the Drama. Prescribed Books: Chaucer (*Globe Edition*); Surrey, *Poems* (*Aldine Edition*); Shakespeare, *Julius Cæsar*, *Antony and Cleopatra*, *Coriolanus* (*Macmillan*); Milton, *The Shorter Poems* (ed. *George, Macmillan*); Jonson, *Sejanus* (*Mermaid Series*). *Add. for Honours.*—Sweet's *Old English Primer* (*Clarendon Press*); Maldon and Brunanburh (*Ginn & Co.*); Pollard's *English Miracle Plays* (*Clarendon Press*).

13. *Third Year.*—Lectures on English Literature during the lifetime of Wordsworth. Lectures on Shakespeare's Tragedies. Prescribed Books: Shakespeare (*Globe Edition*); Wordsworth

Prefaces (ed. George, Heath); Shelley (*Golden Treasury*, Macmillan); Keats (*Golden Treasury*); Godwin, Political Justice (ed. Salt, Sonnenschein); Burns, Songs (*Canterbury Poets*, Scott); Landor, Imaginary Conversations, Selections (Scott); Scott, The Antiquary. *Add. for Honours*.—Beowulf (*Ginn & Co.*); Havelok the Dane (*Clarendon Press*); Piers the Plowman (*Selections*, ed. Skeat, Clarendon Press).

#### ENGLISH—1906.

*First Year, Pass.*—Lectures on English Language. Chaucer, Prologue (*Clarendon Press*); Shakespeare, Merchant of Venice (*Clarendon Press*).

*Second Year, Pass.*—Lectures on the chief writers from Chaucer to Milton; Special subject, Shakespeare and his later dramatic contemporaries; Prescribed Books: Chaucer (*Globe Edition*); Malory, Morte d' Arthur (ed. Martin, Macmillan); Shakespeare, Merchant of Venice (*Clarendon Press*); Twelfth Night (*Clarendon Press*); Winter's Tale (*Macmillan*); Cymbeline (*Macmillan*); Bacon, The New Atlantis (ed. Flux, Macmillan); Milton, the Shorter Poems (ed. George, Macmillan). *Add. for Honours*.—Cook, First Book of Old English (*Ginn & Co.*); Skeat, Specimens 1394-1579 (*Clarendon Press*).

*Third Year, Pass.*—Lectures on the Literature of the 18th Century. Shakespeare's Comedies. Prescribed Books: Shakespeare (*Globe Edition*); Dryden, Satires (ed. Collins, Macmillan); Pope, Satires and Epistles (*Clarendon Press*); Coverley Papers from the Spectator (*Macmillan*); Collins, Poems (*Aldine Edition*); Goldsmith, Vicar of Wakefield (any edition); Johnson's Lives of the Poets (Arnold's Selection, Macmillan). *Add. for Honours*.—Andreas (*Ginn & Co.*); Elene (*Ginn & Co.*); Maclean, Old and Middle English Reader (*Macmillan*).

### 14. MATHEMATICS.\*

#### CLASS EXAMINATIONS.

All students attending lectures, except the Third Year A lectures, must present themselves at the class examinations held at the end of the courses they have been attending.

Such class examinations will be held as under:—

#### AT THE END OF LENT TERM.

First Year in Arts .. .. .	Geometry.
Third Year in Electrical and Mechanical Engineering .. .. .	Differential Equations.

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\* The lecture subjects for evening students in Mathematics are the same as those prescribed for day students of corresponding standing in the University.

AT THE END OF TRINITY TERM.

First Year in Arts .. ..	Algebra.
First Year in Science .. ..	1. Logarithms, Trigonometry and Graphical Algebra. 2. Elementary Analytical Geometry and Infinitesimal Calculus.
First Year in Engineering .. ..	
Second Year in Arts .. ..	Differential and Integral Calculus.
Second Year in Science .. ..	
Second Year in Engineering .. ..	
Third Year in Civil Engineering ..	Spherical Trigonometry.

AT THE END OF MICHAELMAS TERM.

First Year in Arts .. ..	Trigonometry.
First Year in Science .. ..	Elementary Statics and Dynamics.
First Year in Engineering .. ..	
Second Year in Arts .. ..	Statics and Dynamics.
Second Year in Science .. ..	
Second Year in Engineering .. ..	

YEARLY EXAMINATIONS.

Students of the First Year in Arts who pass in the Class Examinations at the end of the Lent and Trinity Terms will not be re-examined in the same subject at the Yearly Examination in December. Those who fail to pass will be re-examined, except in cases of bad failure, when the Faculty may refuse the student permission to present himself in December. The examination at the end of the Michaelmas Term will form part of the Yearly Examination.

Students of the First and Second Years in Science and Engineering and of the Second Year in Arts, who pass in the Class Examination at the end of the Trinity Term, will be held to have passed the Yearly Examination in those subjects. Those who fail to pass will be re-examined in March, except in cases of bad failure when the Faculty may refuse the student permission to present himself. The examination at the end of the Michaelmas Term will form part of the Yearly Examination.

Students of the Third Year in Arts and Science will be examined only in March.

HONOUR EXAMINATIONS.

These are specially adapted to the A Lectures, and are held in March. It is optional for the student to attend these examinations. Honours and Scholarships are awarded on the result of the Honour Examination only.

## FIRST YEAR IN ARTS LECTURES.

The students of the First Year in Arts must attend one of the three courses specified below:—

## FIRST YEAR IN ARTS—CLASS A.

Mondays, Tuesdays, Wednesdays and Thursdays, throughout the year, at 10 a.m., as follows:—

LENT TERM.—Geometry and Geometrical Conics (*Tu.*, *Th.*);  
Algebra (*M.*, *W.*).

TRINITY TERM.—Analytical Geometry (*Tu.*, *Th.*);  
Elementary Infinitesimal Calculus (*M.*, *W.*).

MICHAELMAS TERM.—Statics and Dynamics (*Tu.*, *Th.*);  
Trigonometry (*M.*, *W.*).

## FIRST YEAR IN ARTS—CLASS B.

Tuesdays, Thursdays and Fridays throughout the year, at 10 a.m., as follows:—

LENT TERM.—Logarithms, Trigonometry, and Graphical Algebra.

TRINITY TERM.—Elementary Course in Analytical Geometry and the Infinitesimal Calculus.

MICHAELMAS TERM.—Elementary Statics and Dynamics.

In the Lent and Trinity Terms there is a Tutorial Class at 9 a.m. on Mondays and Wednesdays.

## FIRST YEAR IN ARTS—CLASS C.

Mondays, Wednesdays and Fridays throughout the year, at 10 a.m., as follows:—

LENT TERM.—Geometry.

TRINITY TERM.—Algebra.

MICHAELMAS TERM.—Trigonometry.

## SECOND YEAR IN ARTS.

Students of the Second Year in Arts may attend either of the two courses specified below.

## SECOND YEAR IN ARTS—CLASS A.

Mondays, Tuesdays, Thursdays and Fridays, throughout the year, at 9 a.m., as follows:—

LENT TERM.—Differential and Integral Calculus (*M.*, *Th.*);  
Analytical Geometry (*Tu.*, *F.*).

TRINITY TERM.—Differential and Integral Calculus (*continued*) (*M.*, *Th.*);  
Analytical Statics (*Tu.*, *F.*).

MICHAELMAS TERM.—Differential Equations (*M.*, *Th.*);  
Dynamics of a Particle (*Tu.*, *F.*).

SECOND YEAR IN ARTS—CLASS B.

Tuesdays, Wednesdays and Fridays, throughout the year, at 9 a.m., as follows:—

LENT TERM.—Differential and Integral Calculus.

TRINITY TERM.—Differential and Integral Calculus.

MICHAELMAS TERM.—Statics and Dynamics.

In the Lent and Trinity Terms there is a Tutorial Class at the same hour on Mondays and Thursdays.

THIRD YEAR IN ARTS.

Students of the Third Year must attend the following course:—

THIRD YEAR IN ARTS—CLASS A.

At 11 a.m. throughout the year, as follows:—

LENT TERM.—Solid Geometry (*M., W., F.*);  
Dynamics (*continued*) (*Tu. Th.*).

TRINITY TERM.—Rigid Dynamics (*M., W., F.*);  
Spherical Trigonometry (*Tu., Th.*).

MICHAELMAS TERM—(i.) A course of lectures will be given on the Mathematical Theory of one of the following subjects:—  
Electricity and Magnetism; Sound; Hydrostatics and Hydrodynamics; Heat; Elasticity (*M., W., F.*)\*  
(ii.) Astronomy (*Tu. Th.*).

FIRST YEAR IN SCIENCE AND ENGINEERING.

This class meets on Tuesdays, Thursdays and Fridays at 10 a.m. The course of study is the same as that of the First Year Arts, Class B. Every student must also attend the Tutorial Class on Mondays and Wednesdays in the Lent and Trinity Terms at 9 a.m. Students, who desire to do so, may, with the permission of the Professor, take the Honours Class of the First Year in Arts, and such attendance will exempt them from both of the above Classes.

SECOND YEAR IN SCIENCE AND ENGINEERING.

This class meets on Mondays, Wednesdays and Fridays at 9 a.m. The course of study is the same as that of the Second Year Arts, Class B. Every student must also attend the Tutorial Class on Mondays and Thursdays at 9 a.m. Students, who

\* In 1906 this course will be upon the Mathematical Theory of Conduction of Heat.

desire to do so, may, with the permission of the Professor, take the Honours Class of the Second Year in Arts, and such attendance will exempt them from both of the above Classes.

### THIRD YEAR IN SCIENCE AND ENGINEERING.

Students in Electrical and Mechanical Engineering .. .. .	{ Differential Equations, Tuesdays and Thursdays at 11 a.m., Lent Term.
Students in Civil Engineering .. .. .	{ Spherical Trigonometry, Tuesdays & Thursdays at 11 a.m., Trinity Term.

### THIRD YEAR IN SCIENCE.

The course of study is the same as that of the Third Year in Arts.

#### BOOKS RECOMMENDED FOR THE USE OF STUDENTS.

For Matriculation, 1905-6.

*Pass.*—Any of the ordinary text-books in Arithmetic and Algebra. For the alternative Geometry papers, see p. 76 of the Regulations for the Junior Public Examinations.

*Honours.*—Any of the ordinary text-books on Geometry.

C. Smith's Algebra, or Hall and Knight's Higher Algebra.

Lock's, Loney's, Hall and Stevens', or Borchardt and Perrott's Trigonometry.

Barracough's Trigonometrical Tables, Part I.

#### First Year Arts.

##### Class A—

Richardson and Ramsay's Geometry.

Hocevar's Solid Geometry.

Hamblin Smith's Geometrical Conics.

C. Smith's Conic Sections.

C. Smith's, Hall and Knight's, or Chrystal's Algebra.

Carslaw's Introduction to the Calculus.

Loney's or Hobson's Trigonometry.

Hicks' Elementary Dynamics.

##### Class B—

Any ordinary text-book on Trigonometry.

Moors' or Hall's Introduction to Graphical Algebra.

Briggs and Bryan's Coordinate Geometry, Part I.

Hicks' Dynamics.

Carslaw's Calculus.

##### Class C—

Barnard and Child's Geometry for Senior Forms.

Any ordinary text-book on Algebra.

Borchardt and Perrott's Trigonometry, Part I., or

Loney's Trigonometry, Part I.

#### Second Year Arts.

Class A—In addition to those for the First Year—

Lamb's Infinitesimal Calculus.

Routh's Statics, Vol. I.  
 Forsyth's Differential Equations.  
 Love's Theoretical Mechanics.  
 Besant's Dynamics ; and the following, though not necessary, will be referred to—  
 Williamson's Differential and Integral Calculus.  
 Frost's Curve Tracing.  
 Murray's Differential Equations.

**Class B**—In addition to those of the First Year—

Gibson's Introduction to the Calculus.  
 Murray's Differential Equations.  
 Besant's Dynamics ; or Tait and Steele's Dynamics of a Particle.

**Third Year Arts.**

**Class A**—

C. Smith's Solid Geometry.  
 Routh's Rigid Dynamics, Vol. I.  
 Todhunter and Leathem's Spherical Trigonometry.  
 Barlow and Bryan's Astronomy.  
 Besant's Hydromechanics.  
 Basset's Elementary Hydrodynamics and Sound ; and the following, though not necessary, will be referred to—  
 Frost's Solid Geometry.  
 Salmon's Solid Geometry.  
 Gray's Treatise on Physics, Part I.

**First Year Science and Engineering.**

Same as First Year Arts, Class B.

**Second Year Science and Engineering.**

Same as Second Year Arts, Class B.

**Third Year Science.**

Same as Third Year Arts, Class A.

LOGIC AND MENTAL PHILOSOPHY.

Courses of lectures on the following subjects will be delivered during 1904.

**FACULTY OF ARTS—SECOND YEAR.**

15. **LOGIC**.—A general introduction to the study of philosophy. The relation of philosophy to the special sciences. Classification of the sciences. The nature of scientific and philosophical explanation. Categories of explanation. Explanation by class, law, cause, end. Analysis of the conceptions of causé, mechanism, organism, development.

The principles of logic, inductive and deductive. Analysis of the concept, judgment, inference. The principles of syllogistic reasoning. Definition, division and classification. Fallacies in the formal process of reasoning.

Methods of inductive reasoning. Analysis of the various methods of scientific investigation and proof. An account of theories of causation, with special reference to modern scientific concepts and methods. Methods of the historical sciences.

PSYCHOLOGY.—The scope, data, and methods of psychology. Analysis of the conditions and laws of mental processes. Sensation and perception. The nature and conditions of attention. Association and reproduction of perceptions. Memory and imagination. Stages in the development of mental life. Thought and language. Analysis of feelings. The intellectual, æsthetic, moral and religious sentiments. Impulse and desire. Will and character. Abnormal psychology.

BOOKS REQUIRED—*Pass*—Mellone's Text-book of Logic (*Blackwood*); Welton's Logical Bases of Education (*Macmillan*); James' Text-book of Psychology (*Macmillan*); Külpe's Introduction to Philosophy (*Sonnenschein*). *Additional for Honours*—Hibben's Inductive Logic (*Blackwood*); Bosanquet's Essentials of Logic (*Macmillan*); Mill's Logic (*Longmans*).

#### FACULTY OF ARTS—THIRD YEAR.

16. ETHICAL AND SOCIAL PHILOSOPHY.—The scope and methods of ethics. Ethics as a deductive and normative science. Relation of ethics to psychology, sociology and metaphysic. The development of ethical theory. Psychological and metaphysical basis of ethical theory. Contrast between ancient and modern ethics. Kant and modern Hedonism. Empirical and evolutionary ethics. The ethics of idealism. Historical and critical account of the main problems of modern philosophy.

The sociological basis of ethics. Nature and influence of custom. The family in ancient, medieval, and modern times. The formation of classes. The development of the State from ancient to modern times. The social ideal—order, freedom, justice. Analysis of the conceptions underlying different theories of society. Modern socialism and the State.

BOOKS REQUIRED.—Külpe's Introduction to Philosophy (*Sonnenschein*); Mackenzie's Manual of Ethics (*Clire*); Mackenzie's Outlines of Metaphysics (*Macmillan*); Fairbank's Introduction to Sociology (*Kegan Paul*). *Additional for Honours*—Bosanquet's Psychology of the Moral Self (*Macmillan*); Green's Prolegomena to Ethics (*Clarendon Press*); Spencer's Principles of Ethics, Vol. I. (*Williams and Norgate*).

Lectures on these subjects will be delivered as follows:—

To second year Arts students—Logic and Psychology.



To third year Arts students—Ethical and Social Philosophy.

To second and third year evening students—Ethical and Social Philosophy.

Each of these courses will consist of ninety lectures. All students are required to perform the class exercises and to take part in *vinâ voce* and written examination, as part of the ordinary class work.

#### FACULTY OF MEDICINE.

17. A special course of lectures on logic will be delivered during Lent Term to second year students in the Faculty of Medicine. The course will consist of twenty lectures, to be delivered twice a week, on Wednesdays and Fridays, at twelve noon.

The following subjects will be discussed in the lectures:—Classification of the sciences. The nature of explanation, ordinary, scientific, and philosophic. The principles of definition, division, and classification. Nature of deductive and inductive proof. Explanation by class, law, cause, end. Analysis of the various methods of experimental enquiry.

BOOKS RECOMMENDED.—Welton's Logical Bases of Education, Hibben's Inductive Logic.

#### HISTORY.

The following will be the subjects of study in 1905.

18. For Second Year Students.

PASS.—The History of England to 1603.

BOOKS RECOMMENDED.—Green's Short History of the English People, pp. 1 to 474; Gibbins's Industry in England, pp. 1 to 264; Wakeman's History of the Church of England, pp. 1 to 354; Freeman's Growth of the English Constitution; Gardiner's Historical Atlas.

Students will be required to write essays, and take examination papers in the course of the year.

HONOURS.—Honours will be awarded on the following work :

- (1) Papers on the Pass work as described above.
- (2) A paper calling for special knowledge of the period from 449 to 1087.

BOOKS RECOMMENDED in addition to those named above.—The English Chronicle (translation); Bede's Ecclesiastical History (translation); Asser's Life of Alfred (translation); Green's "Making of England," and "Conquest of England"; Freeman's William I.

- (3) A paper on European History from 800 to 1250.

**BOOKS RECOMMENDED.**—Bryce's Holy Roman Empire; Tout's The Empire and the Papacy; Milman's Latin Christianity, Book VII, chapters 1, 2 and 3. and Book IX; Kingsford and Archer's Crusades; Morison's St. Bernard; Sabatier's St. Francis.

- (4) Essays to be written in the course of the year.

19. For Third Year Students:—

**PASS.**—The History of the British Empire from 1756 to 1867.

**BOOKS RECOMMENDED.**—Bright's History of England, Vols. 3 and 4; Gibbins's Industry in England, pp. 265 to 474; Seeley's Expansion of England; Bagehot's English Constitution; Burke's Speech on Conciliation with America; Burke's Reflections on the French Revolution; Carlyle's Past and Present.

Students will be required to write essays, and to take examination papers in the course of the year.

**HONOURS.**—Honours will be awarded on the following work:

- (1) Papers on the Pass work as described above.
- (2) A paper calling for special knowledge of the period of English History from 1760 to 1797.

**BOOKS RECOMMENDED** in addition to those named above.—The following works of Burke: Thoughts on the Present Discontent; Speech on American Taxation; Letter to the Sheriffs of Bristol; Speech on Economic Reforms; Appeal from the New Whigs to the Old; Letters on a Regicide Peace; Letter to a Noble Lord; Thoughts on Scarcity; Letter to Sir H. Langrishe; Morley's Burke; Lecky's History of England, chapters 12, 14, 21 and 22.

- (3) A paper on the History of Europe from 1789 to the present time.

**BOOKS RECOMMENDED.**—Syme's French Revolution; Fyffe's Modern Europe; Phillips' European History, 1815 to 1899; Seeley's Napoleon; Dickinson's Revolutions and Reactions in Modern France; Cesaresco's Liberation of Italy; King's Mazzini; Headlam's Bismarck.

- (4) Essays to be written in the course of the year.

## PHYSICS.

### FOR FIRST YEAR STUDENTS.

20.—An introductory course of about thirty lectures in Trinity Term on the Elementary Principles of Mechanics, Properties of Matter, Sound, Heat and Light.

*Text Book.*—Lehfeldt's Physics or Knott's Physics.

The Smith Prize for Physics is awarded on the result of the Class Examination at the end of this course of lectures.

20A.—A course of twenty lectures in Michaelmas Term, consisting generally of the more precise treatment of the subjects of the previous Term's lectures, chiefly in Heat, Light, and Electricity and Magnetism.

Candidates for Honours and Scholarships are required to attend courses 20 and 20A and the First Year Practical Class for one Term.

#### FOR SECOND YEAR STUDENTS.

21.—A course of sixty lectures on the Properties of Matter, Heat, and Electricity and Magnetism.

#### FOR THIRD YEAR STUDENTS.

22.—A course of sixty lectures on Physical Optics, Acoustics, and Electricity and Magnetism.

For Honours the examination will include the subjects of the Second Year.

#### PHYSICAL LABORATORY.

The Physical Laboratory was designed by Richard Threlfall, M.A., F.R.S., then Professor of Physics in the University, and was built under his supervision. The building was commenced in 1886, and completed early in 1888. Considerable additional laboratory accommodation was provided in 1901 by an extension of one side of the building.

The Laboratory was founded for the encouragement of the study of Physical Science, and its object is not only to afford facilities for imparting instruction but also for aiding research.

#### 23.—PRACTICAL PHYSICS.

##### FIRST YEAR.

The course consists of quantitative experiments in the following:—

Measurement of Length. Estimation of Mass. Determination of Density. Thermometry and Expansion. Calorimetry. Determination of Musical Pitch. Measurement of Velocity of Sound in the Air and in Solids. Reflection and Refraction of Light. Total Reflection. Refractive Indices. Elementary Spectroscopy. Double Refraction. Polarisation of Light. Fundamental Experiments of Electro-statics. Electrometer and Galvanometer Measurements. Measurement of Resistance. Electro-magnetic Induction.

*Text Book.*—Practical Physics," Glazebrook and Shaw.

All students attending the Physical Laboratory are required to keep a record of their practical work in special note-books, to be obtained from W. E. Smith, Bridge Street. These note-books form the basis on which marks are allotted for Practical Physics at the annual examination.

Students presenting themselves for examination in Physics at the end of any Academic Year during which they have not attended the Laboratory must also present themselves for examination in Practical Physics.

#### SECOND YEAR.

The course consists of quantitative experiments in the following:—

Expansion of Solids and Gases. Elasticity of Solids. Measurement of Time. Determination of Moments of Inertia. Pendulums. Magnetic Measurements. Relation between Magnetic Force and Magnetic Induction in Metals, investigated magnetometrically and ballistically. Determination of the Magnetic Elements. Accurate Comparison of Resistances. Electrolytic Measurement of Currents. Comparison of Electromotive Forces. Measurement of Capacity. Fundamental Experiments of Electro-magnetism. Measurement of Mutual and Self Induction, &c.

*Text Book.*—Practical Physics, Glazebrook and Shaw; and Practical Electrical Testing in Physics and Electrical Engineering, Aspinall Parr.

#### THIRD YEAR.

Advanced Physical Measurements.

*Text Book.*—Physical Measurements, Kohlrausch (translated by Waller and Procter, Churchill, London).

#### BOOKS RECOMMENDED.

##### For First Year Students.

Lehfeldt's Physics or Knott's Physics.

##### For Second and Third Year Students.

*General Physics.*—Maxwell's Matter and Motion. Everett's C.G.S. System of Units. Worthington's Dynamics of Rotation. Tait's Properties of Matter. Poynting and Thomson's Properties of Matter. Lord Kelvin's Article on Elasticity in the Encyclopædia Britannica. Todhunter's History of Elasticity. Kelvin and Tait's Natural Philosophy. J. J. Thomson's Application of Dynamics to Physics and Chemistry. Jevons' Principles of Science. Threlfall's Laboratory Arts.

*Heat.*—Preston's Theory of Heat. Poynting and Thomson's Heat. Maxwell's Theory of Heat. Tait's Heat. Balfour Stewart's Treatise on Heat. Ewing's Steam Engine and other Heat Engines. Clausius' Mechanical Theory of Heat.

*Light.*—Lewis Wright's *Light*. Preston's *Theory of Light*. Verdet's *Optique*. Mascart's *Optique*. Drude's *Optics*.

*Sound.*—Poynting and Thomson's *Sound*. Lord Rayleigh's *Sound*. Helmholtz's *Sensations of Tone*.

*Electricity and Magnetism.*—J. J. Thomson's *Elements of the Mathematical Theory of Electricity and Magnetism*. Clerk Maxwell's *Elementary Electricity*. Clerk Maxwell's *Electricity and Magnetism*. J. J. Thomson's *Recent Researches in Electricity and Magnetism*, *Conduction of Electricity through Gases*, and *Electricity and Matter*. Rutherford's *Radio-activity*. Articles on *Electricity and Magnetism* in the *Encyclopædia Britannica*. Ewing's *Magnetic Induction in Iron and other Metals*. Fleming's *Alternate Current Transformer*. Steinmetz *Alternating Current Phenomena*.

## CHEMISTRY.\*

### INTRODUCTORY COURSE FOR FIRST YEAR ARTS STUDENTS.

24.—This course deals with the principal non-metals and their most important compounds, the laws of chemical combination, the atomic theory, the use of chemical formulæ, and the elements of physical chemistry.

**BOOKS RECOMMENDED.**—Perkin and Lean's *Introduction to the Study of Chemistry*; Dobbin and Walker's *Chemical Theory for Beginners*; Whiteley's *Chemical Calculations*; Tilden's *Manual of Chemistry*.

### THE NON-METALS.

25.—This course is on the general principles of chemistry; the non-metallic elements and their principal compounds; certain of the common carbon compounds of everyday life; and such processes as combustion and respiration. The metals as a class, and their chief compounds with the non-metals.

The course is delivered in Lent Term, and is intended for students in the Faculties of Medicine and Science.

Students in the Faculties of Medicine and Science are also required to attend the Tutorial Class, which meets once a week.

Candidates for Honours and Scholarships are required to attend the Laboratory for one Term.

**Text Books.**—Roscoe's *Elementary Chemistry*, Tilden's *Inorganic Chemistry*, Thorpe's *Non-metals*, or other similar text book.

### THE METALS.

26. A course of lectures upon the Metals and their principal compounds and alloys is given daily during Trinity Term. Compulsory for students in the Faculties of Medicine and Science and the Departments of Engineering, Pharmacy and Dentistry.

**Text Books.**—Thorpe's *Metals*, Tilden's *Inorganic Chemistry*.

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\* A fuller syllabus can be obtained in the Registrar's Office or at the Laboratory.

## ENGINEERING CHEMISTRY.

27. A course of lectures upon the Chemistry of Materials used in Engineering and Building Construction.

## ORGANIC CHEMISTRY.

28. A course of lectures upon the Carbon Compounds is given during Michaelmas and Lent Terms. Compulsory for students in the Faculties of Science and Medicine.

*Text Books.*—Organic Chemistry by Perkin and Kipping.

*Reference.*—Roscoe and Schorlemmer's Treatise on Chemistry.

## TUTORIAL CLASS IN CHEMISTRY.

A Class for Calculations and similar exercises meets once a week during term. Attendance is compulsory for students in the Faculties of Medicine and Science and Departments of Engineering, Pharmacy and Dentistry.

## CHEMICAL PHILOSOPHY.

29. A course upon the History of Chemical Philosophy and Discovery is given during Lent and Trinity Terms for students of the Third Year in the Faculty of Science, and Undergraduates in Medicine who are candidates for the Degree of B.Sc. in Chemistry.

*Text Books.*—Theoretical Chemistry, by W. Nernst (McM. & Co.), or Meyer's Modern Theories of Chemistry (Longmans & Co.), or Ostwald's Outlines of General Chemistry, Ostwald's Solutions (McM. & Co.) and History of Chemistry, E. von Meyer (McM. & Co.), Van't Hoff's Physical Chemistry (Arnold). Walker's Physical Chemistry.

**GENERAL BOOKS OF REFERENCE.**—Roscoe and Schorlemmer's Treatise on Chemistry, Mendeleef's Principles of Chemistry, Morley & Muir's Dictionary of Chemistry, Thorpe's Dictionary of Applied Chemistry, Alembic Club Reprints, and certain current literature.

**NOTE.**—Arts students of the Second or Third Years may take up Courses 25, 26 and 28 as a voluntary subject, provided that such students have passed the Annual Examination upon the Introductory Course, No. 24; but an Arts student who has taken up these courses in his Second Year cannot be allowed to take up the same courses again in the Third Year.

**NOTE.**—Students in the Second and Third Years in the Faculty of Science, who select Chemistry as one of their subjects, are required to go through a course of QUANTITATIVE ANALYSIS, and to be examined in the same. This applies also to students in the FACULTY OF MEDICINE, who take up the advanced course in Chemistry to qualify for the B.Sc. Degree.

Students in the Mining Branch of Engineering are required in their Second and Third Years to go through a course of QUANTITATIVE ANALYSIS, ASSAYING and PRACTICAL METALLURGY, and to be examined in the same.

## METALLURGY.

30. A course of about sixty lectures will be given during Lent and Trinity Terms for Third Year students in the Department of Mining and Metallurgy. Introduction: Physical and chemical properties of metals and alloys; fire-resisting materials; manufacture of charcoal, coke and gaseous fuels: pyrometry; general metallurgical processes and agents; types of furnaces; fluxes, slags, &c. Detailed descriptions of the methods of extracting the following metals from their ores:—Gold, silver, lead, copper, tin, platinum, antimony, zinc, nickel, cobalt, bismuth, mercury, aluminium, and iron. Students will be expected to make full notes at the lectures, and will be referred to the literature of the subject immediately under discussion.

All students are required to attend the Excursions to Metallurgical Works.

Every student is required to prepare a written description of either a mine or metallurgical plant, and to prepare drawings and specifications for the erection of metallurgical works, as part of his final examination for the Third Year.

BOOKS RECOMMENDED.—Roberts-Austen's Introduction to the Study of Metallurgy; Grüner's *Traité de Metallurgie*; Percy's Metallurgy; Egleston's Metallurgy in the United States; Schnabel's Handbook of Metallurgy, translated by H. Louis, M.A.; Rose's Gold; Richards' Stamp Milling of Gold Ores; Eissler's Treatises on Gold, Silver, Silver Lead, and the Cyanide Process; Scheidel's Cyanide Process; Hoffmann's Lead; Hixon's Lead and Copper Smelting; Peters' Modern Copper Smelting; Lang's Matte Smelting; Howe's Iron and Steel; Lowthian Bell's Chemical Phenomena of the Blast Furnace; Rowan and Mill's Fuel; Sexton's Fuel and Refractory Materials; Richards' Aluminium; and papers by various authors in the *Trans. Am. Inst. Min. Engineers*, *Journal of the Iron and Steel Institute*, *Engineering and Mining Journal of New York*, *Trans. Inst. Min. and Met.* &c.

## AMBULANCE COURSE.

Students in Mining Engineering are required to have attended an Ambulance Course upon First Aid, and to have passed an Examination in the same before proceeding to the Bachelor's Degree.

## PRACTICAL CHEMISTRY.

## THE CHEMICAL AND METALLURGICAL LABORATORIES.

The Chemical Laboratory was built in 1889. The building is a plain rectangular structure, about 170 feet long by 86 feet wide. A new Assay Laboratory, 55 by 44 feet, and a Milling and Leaching Room, 35 by 100 feet, have recently been added. There are also open and covered yards for out-door operations.

The small lecture room will seat 108, and the larger one about 170 students.

The Junior Laboratory contains 40 benches, and the Senior Laboratory will take about 45 advanced students. There are also separate rooms for spectroscopic and gas analysis, for photography and for research work. A room is set apart for Chemical Collections, and for old forms of apparatus, etc., of historical interest.

The building is provided with the electric light throughout the upper floor, and the gas engine for driving the dynamos is attached to shafting connected with the grinding machines, apparatus for the liquefaction of gases, and similar appliances necessary for a large laboratory. Leads are carried to convenient places in the laboratories, so that if necessary the full power of the dynamos may be used for experimental purposes.

Special efforts have been made to give the students the benefits of modern improvements and appliances, and particularly those which tend to save time; draught cupboards, filter pumps, exhaust pipes, and similar conveniences are fitted to each bench. A number of larger hoods and draught cupboards for combustions, sulphuretted hydrogen gas, water baths, and ovens are also provided. There are three balance rooms, each 21 by 16 feet, provided with balances for different purposes, which, to prevent vibration, rest on slate benches, supported upon stone brackets.

The Metallurgical Laboratories contain 44 fusion and muffle assay furnaces, and an experimental reverberatory furnace with a bed 6 feet by 4 feet.

The plant for the concentration and treatment of metalliferous ores includes a challenge ore feeder, set of stamps, Gates' rock breaker, Rogers' crushing rolls, Chilian mill, Carter's disintegrator; Krupp ball mill; elevator; trommels, samplers, amalgamating plates and pans, Spitzkasten; a Frue vanner, Wilfley



concentrator, plunger jigs, settling tanks, magnetic concentrator, etc. Also vats and the necessary appliances for the extraction of gold and silver ores by chlorine, cyanide, hyposulphite, and other similar leaching processes.

### 31.—PRACTICAL COURSES.

#### A.—INTRODUCTORY COURSE FOR JUNIOR AND MEDICAL STUDENTS.

This course consists of thirty exercises of three hours each.

1. Glass working.—Rounding the ends of rods and tubes, drawing, bending and joining tubes, blowing bulbs, mending test tubes.

2. The preparation and property of gases, *e.g.*, hydrogen, oxygen, carbon monoxide, carbon dioxide, the oxides of nitrogen and sulphur; chlorine, hydrochloric acid, hydrofluoric acid, ammonia, etc.

3. The structure of flame; flame reactions; use of blow-pipe; reduction of metals on charcoal; incrustations; flame and film tests; borax and microcosmic salt beads.

4. Use of the Spectroscope.

5. Reactions of Reagents.

6. Qualitative Analysis by wet and dry processes.

7. Reactions and processes for the detection of the alkaloids, sugars, starch, glycerol, alcohol, fusel oil, carbolic acid and similar common substances.

Students *require* one of the following books—Qualitative Analysis (*Thorpe and Muir*), Qualitative Analysis (*W. Valentin, F.C.S.*), Qualitative Analysis (*Fresenius*), Tables for Qualitative Analysis (*A. Liversidge, M.A., F.R.S.*), Analytical Chemistry, Vol. I. (*Treadwell*). Ostwald's Foundations of Analytical Chemistry (*Macmillan*) is also recommended for further study.

#### B.—ELEMENTARY QUANTITATIVE COURSES FOR FIRST YEAR

##### STUDENTS IN THE DEPARTMENT OF ENGINEERING.

Testing balance and weights. Estimation of filter ash. Simple gravimetric estimations, such as Copper in Copper sulphate, Lead in Lead nitrate, Chromium in Potassium dichromate, Mercury in Mercuric chloride. Testing calibration of Burette, Pipette and Flask. Use of Gooch crucible and of

weighed filter paper. Preparation of standard alkali and acid solutions. Use of indicators—litmus, methyl orange, and phenolphthaleïn.

**C.—COURSE IN ENGINEERING CHEMISTRY FOR SECOND YEAR STUDENTS IN THE DEPARTMENT OF ENGINEERING.**

Examination of water for boiler purposes. Examination of lubricating oils and paints. Analysis of cements. Analysis of furnace gases.

**D.—COURSE IN QUANTITATIVE WORK AND THE PREPARATION OF TYPICAL CARBON COMPOUNDS FOR MEDICAL AND PHARMACY STUDENTS.**

Testing balance and weights. Determination of specific gravities. Testing calibration of Burette, Pipette and Flask. Preparation of litmus solution. Preparation of standard acid and alkali solutions. Use of indicators, methyl orange, and phenolphthaleïn. Preparation of Ethyl Iodide, Acetic Aldehyde, Ethyl Acetate, Ethyl Alcohol, Acetic Acid, Acetone, Aniline and Urea.

**ADDITIONAL COURSE FOR ADVANCED PHARMACY STUDENTS.**

*Volumetric Analysis.*—Estimation of iron, chlorine and arsenious oxide.

*Gravimetric Analysis.*—Estimation of iron, antimony, phosphoric acid and silver.

**E.—COURSE FOR CANDIDATES FOR THE B.SC. DEGREE IN CHEMISTRY AND B.E. DEGREE IN MINING AND METALLURGY.**

Part IV. is not compulsory for candidates for the B.E. Degree.

**PART I.**—1. Verification of weights. 2. Determination of ash in filter paper. 3. Copper Sulphate. 4. Potassium dichromate. 5. Calcite. 6. Sodium chloride. 7. Rochelle Salt. 8. Ammonio-ferrous Sulphate. 9. Lead Nitrate. 10. Siderite. 11. Dolomite. 12. Apatite. 13. Orthoclase. 14. Niccolite (kupfernickel). 15. Smaltite (Co, Ni and As.). 16. Copper pyrites. 17. Topaz.

**PART II.** — Certain of the following: — 18. Blende. 19. Zinc Silicate. 20. Pyrolusite. 21. Chromite. 22. Wolfram. 23. Mispickel. 24. Fahlore. 25. Petalite. 26. Beryl. 27. Strontianite. 28. Cinnabar. 29. Coinage-bronze. 30. Lead, tin, bismuth, cadmium alloy. 31. Ilmenite. White lead and pigments. Cements. Iron Ores. Iron and Steel. Fireclay. Oils. Mineral Oils—including flashing points. Coal Gas. Furnace Gases. Coal, including ash and calorific power. Coke. Water for domestic and manufacturing purposes.

**PART III.**—Volumetric Analysis:—1. Chlorine. 2. Silver. 3. Potassium and sodium. 4. Sodium hydroxide. 5. Iron by permanganate and dichromate solutions. 6. Bleaching powder. 7. Nitric acid. 8. Chloric acid. 9. Ammonia.

**PART IV.**—Organic Chemistry, &c.:—1. Exercises in the purification of substances, including fractional crystallisation and distillation. 2. Boiling and melting points. 3. Specific gravities. 4. Ultimate analyses. 5. Vapour density. 6. Molecular weights. 7. Use of polariscope. 8. Preparation of carbon compounds.

*Text Books.*—Quantitative Analysis, by Clowes and Coleman; Fresenius' Quantitative Analysis; Treadwell's Quantitative Analysis; Sutton's Volumetric Analysis; Phillips' Engineering Chemistry; Wöhler's Mineral Analysis.

#### **F.—ASSAYING AND METALLURGICAL COURSE.**

Candidates for the B.E. Degree in Mining and Metallurgy are required to take the following course:—

Technical examination of Fuels and Fireclays.

Dry assay of Gold, Silver, Lead, Tin and Mercury Ores.

Assay of Silver and Gold Bullion.

Volumetric methods for Copper, Zinc, Lead, Manganese and Iron.

Electrolytic and Colorimetric methods for Copper. Examination of the Cornish dry process.

Complete analysis of Slag.

Complex Gold and Silver Ores.

Iron and Steel Analysis.

Analysis of Furnace Gases.

The treatment of bulk samples of ores, viz.: crushing, grinding, roasting, sampling, concentrating (including vanning), and leaching.

**NOTE.**—Students are required to preserve and label their metallurgical preparations, alloys, slags, and metallic buttons for the inspection of the Examiners at the end of the course.

**BOOKS RECOMMENDED.**—Beringer's Text Book of Assaying; or one of the following :—*Guide Pratique du Chimiste, Métallurgiste et de l'Essayeur* par L. Campredon. Baudry et Cie. Editeurs. Furman's Manual of Practical Assaying. *For reference*—Arnold's Steel Work Analysis; Hempel's Gas Analysis; Rhead and Sexton's Assaying. Notes on Assaying by Lodge.

#### G.—COURSE OF PRACTICAL METALLURGY FOR DENTISTS.

A course of sixty hours upon Elementary Practical Metallurgy is given in Michaelmas Term.

Each student is required to make experiments upon the following:—

1. Physical and Chemical properties of metals.
2. Effects of impurities upon these properties.
3. Preparation of certain alloys and amalgams, to illustrate the various changes brought about by alloying metals with each other.
4. Recovery of Gold, Platinum and Silver from scrap.
5. Purification of Gold and Silver.

**BOOKS RECOMMENDED.**—Dental Metallurgy, E. A. Smith (Churchill). *For reference*—Dental Metallurgy by Essig (S. S. White). Mixed Metals, Hiorns (McM. & Co.)

**APPARATUS.**—Students will require the apparatus which they used for the practical chemistry, and certain small articles of which a list can be obtained in the Laboratory.

#### REGULATIONS FOR THE CHEMICAL AND METALLURGICAL LABORATORIES.

The Chemical and Metallurgical Laboratories are open daily during Term time for instruction in Experimental Chemistry, Qualitative and Quantitative Chemical Analysis, Assaying and Ore Treatment.

Students engaged in special investigations will have to provide themselves with any materials they may require which are not included among the ordinary reagents, also with the common chemicals when they are employed in large quantities.

All preparations made from materials belonging to the Laboratory become the property of the Laboratory.

No experiment of a dangerous character may be performed without the express sanction of the Professor or Demonstrators.

Each student is required to keep full notes of each day's work for the use of the Examiners.

The Laboratory hours are from 10 a.m. to 5 p.m. except on Saturdays, when the Laboratory will be closed at 1 p.m.

Every student not working with a class is required to enter the time of his arrival and departure in the attendance book.

Each student is required to provide himself with a set of apparatus necessary for the above course of Experimental Chemistry and Qualitative Analysis.

Apparatus left by a student and not removed within three months is liable to be forfeited.

The larger and more expensive pieces of apparatus are provided, for the general use of students, by the University, on the condition that all breakages have to be made good.

The Fees for instruction in the Laboratory in the case of students who have already attended the introductory practical course will be found on page 201.

## GEOLOGY AND MINERALOGY.

### LECTURE COURSES.

For First Year Students.

#### 32.—PHYSIOGRAPHY.

A course of thirty lectures on the above subject, with special reference to Australian Physical Geography, will be delivered in Michaelmas Term. A similar course is given each alternate year to evening students, one lecture being given per week during each of the three Terms. Evening lectures will be given during 1906.

The lectures will treat of the Composition, Movements and Work of the Atmosphere and of the Ocean; of Evaporation and Rainfall; of Lakes, Rivers, Springs and Artesian Wells; of various Glacial Phenomena, and of the Nature, Composition and Movements of the Earth's Crust, with a short account of Ore Deposits and Meteorites.

A brief sketch will be given of the development of Animal and Plant Life from early Geological time down to the present day, and of the Geological Antiquity of Man, with outlines of

the various theories about Evolution. The course will conclude with a summary of the cosmical aspects of Geology. The lectures are illustrated by means of diagrams and lantern views.

*Text Book.*—Physical Geography, by Professor W. M. Davis.

*For Reference and Further Study.*—Volcanoes, by Professor J. W. Judd; Geology of Sydney and the Blue Mountains, by the Rev. J. M. Curran; Earth Sculpture, by Professor Geikie; Agricultural Geology, by J. E. Marr; Scenery of Switzerland, by Lubbock.

For Second Year Students.

### 33.—GENERAL GEOLOGY.

This course will consist of a series of sixty lectures, discussing the subdivisions of the subject in the following order:—History of Geology, Material Geology, Elementary Mineralogy, Structural Geology, Stratigraphical Geology.

The lectures will occasionally be illustrated by means of a lime-light lantern. Occasional Geological Excursions will be conducted during the Lent and Trinity Terms to localities of special geological interest in the neighbourhood, and, if possible, a week to ten days will be devoted to Field Work during one of the vacations. Students will be instructed in the preparation of geological maps and sections.

*Text Books.*—Petrology for Students, Harker; Text Book of Mineralogy, E. S. Dana; Palæontology, Woods; Text Book (or Class Book) of Geology, Sir A. Geikie; Physical Geography, Davis.

*For Reference and Further Study.*—The Student's Handbook of Physical Geology, A. J. Jukes Browne; Physical Geology, A. H. Green; Earth Sculpture, Professor Geikie; Principles of Geology, Lyell; Field Geology, Penning; Principles of Stratigraphical Geology, J. E. Marr; Intermediate Text Book of Geology, Lapworth; Ancient Volcanoes of Great Britain, Sir A. Geikie; La Face de la Terre, Suess, 3 vols.; Face of the Earth, Suess, Vol. I., translated by H. B. C. Sollas; Traité de Géologie, De Lapparent; Minerals in Rock Sections, Luquer, 1898; Elements of Geology, Le Conte, edited by Fairchild.

### 34.—MINERALOGY.

*Compulsory for Students in Mining Engineering in their Second Year.*

A course of about twenty lectures upon Mineralogy will be delivered during Trinity Term. These lectures are illustrated by a series of over 2000 hand specimens for close inspection, also by models of crystals and diagrams, and will include:—

#### I. INTRODUCTION.

**\*II. CRYSTALLOGRAPHY.**—The different systems under which crystals are grouped; the laws by which their variations and combinations are governed. The formation of crystals.

**III. The principal PHYSICAL PROPERTIES of Minerals,** which aid in the recognition of the various species.

**IV. CLASSIFICATION OF MINERALS.**

**V. The PHYSIOGRAPHY or systematic description of minerals,** including all the more abundant or important minerals, both those which are of geological importance and those which are of commercial value. Special reference will be made to the mode of occurrence and distribution of the minerals of Australasia.

*Text Books.*—Dana's Manual of Mineralogy and Petrography (not essential for those who have already E. S. Dana's Text-book of Mineralogy); Mineralogy, Crystallography and Blowpipe Analysis, Moses and Parsons, 1895; Manual of Determinative Mineralogy and Blowpipe Analysis, by G. J. Brush, thirteenth edition, 1891; Determinative Mineralogy and Blowpipe Analysis, by G. J. Brush and S. L. Penfield, fifteenth edition, 1899. *For reference and further study*—Genesis of Ore Deposits, Posepny, etc., reprinted from Trans. Amer. Inst. Mining Engineers; Minerals of New South Wales, A. Liversidge, M.A., LL.D., F.R.S.; The Mineral Resources of New South Wales, by E. F. Pittman, Assoc. R.S.M.; Ore Deposits of the United States and Canada, Kemp.

#### 35.—For Third Year Students.

##### A—STRATIGRAPHICAL GEOLOGY AND AUSTRALIAN GEOLOGY.

This course will consist of about twenty lectures, delivered during Lent Term, dealing with the principles of Stratigraphical Geology, with the Geology of the Australian Continent, and with the physical features of the ocean and islands surrounding it.

*For Reference.*—Physical Geography, Davis; Geology of Queensland, Jack and Etheridge; Physical Geography and Geology of Victoria, R. A. F. Murray; Geography of Victoria, by Professor Gregory; Rothpletz, Geotektonische Probleme; Reyer, Theoretische Geologie; Suess, Das Antlitz der Erde; Leçons de Géographie Physique, De Lapparent; Elements of Geology, Le Conte, new edition by Fairchild; Geology, Chamberlin and Salisbury.

##### B—PALÆONTOLOGY.

This course will consist of sixty lectures, to be delivered during the Lent, Trinity and Michaelmas Terms. The principal classes of the *Invertebrata* found in the fossil state will be con-

\* This consists of combined lectures and demonstrations given during Lent Term. For further particulars see "Practical Courses."

sidered, the lectures being illustrated with numerous specimens and diagrams. Special reference will be made throughout to the Palæontology of Australia, and incidentally to its Palæophytology.

*Text Books.*—Grundzüge der Palæontologie, Zittel (or translation of preceding by Eastman); Manual of Palæontology, Nicholson.

#### C—CRYSTALLOGRAPHY.

A course of sixteen lectures, in which will be discussed:—Angular Distribution of Crystal Faces, Symmetry, the Various Systems of Notation, the Relations of Zones, Methods of Projection and Crystal Drawing, Apparatus for Goniometry, and in detail the forms belonging to one or more of the Systems. The lectures will be delivered twice a week during the Lent Term.

*Text Books.*—Crystallography, Lewis; Crystallography, Story-Maskelyne; Physikalische Krystallographie, Groth.

#### D—THEORY OF THE MICROSCOPE.

This course will consist of four lectures, giving an outline of the Theory and Construction of the Microscope. The treatment will be general, excepting in the last lecture when attention will be devoted chiefly to the Polarising Microscope. The lectures will be delivered once a week at the commencement of the Trinity Term.

*For Reference.*—The Microscope, Carpenter, edited by Dallinger, 1901; The Microscope, Naegeli and Schwendener, translated by Crisp and Mayall.

#### E—OPTICAL MINERALOGY.

A course of twelve lectures given in the Trinity Term on the Optical Properties of Minerals. The time will be chiefly spent in discussing the Phenomena of Double Refraction, both of Uniaxial and Biaxial Minerals.

*For Reference.*—Text-book of Mineralogy, E. S. Dana; Light, Lewis Wright; The Optical Indicatrix, Fletcher; Theory of Light, Preston; Physikalische Krystallographie, Groth; Crystallographie Physique, Soret.

#### F—PETROLOGY.

This course, consisting of eighteen lectures, and delivered in the Michaelmas Term, will begin with a discussion of the General Composition, Habits of Occurrence, and Possible Modes of Origin of Igneous Rocks. The Classification of Igneous Rocks will be considered, with special reference to schemes



recently proposed, and so far as time permits, the rocks of one or more groups of special interest will be described in detail. The last four lectures will be devoted to the Metamorphic Rocks.

*For Reference.*—Microscopical Physiography of Rock-making Minerals, Rosenbusch, translated by Iddings; Elemente der Gesteinslehre, Rosenbusch; Mikroskopische Physiographie der Mineralien und Gesteine, Vols. I. and II., Rosenbusch; Lehrbuch der Petrographie, Zirkel; Quantitative Classification of Igneous Rocks, Cross, Iddings, Pirsson and Washington; British Petrography, Teall.

Owing to the wide range of the subject, the work of Third Year Students in Geology and Mineralogy is necessarily of a more specialised character than that of elementary students. All Third Year Students are required to take Course No. 35A, but the courses on Palæontology (35B) and the courses on Mineralogy (35C, 35E, 35F) taken together may be regarded as alternative. A full course will be either (i.) Stratigraphical Geology (including Australian Geology) and Palæontology, or, (ii.) Stratigraphical Geology (including Australian Geology), together with Crystallography, Optical Mineralogy, and Petrology. Students are at liberty to offer themselves for examination in both Palæontology and Mineralogy, but they will not thereby obtain extra credit. They will be classed by the subject in which they show greater proficiency.

Students in their Third Year will be encouraged to take up some original line of research, either in Palæontology, Mineralogy, Petrology, or Field Geology, and will be credited for such original work, in so far as it is satisfactory, at the Annual Examination.

#### PRACTICAL COURSES.

##### 36.—For Second Year Students.

LENT TERM.—(a) Combined lectures and demonstrations on Elementary Crystallography, embracing Structure and Growth of Crystals, Symmetry, use of Contact Goniometer, Millerian Indices, Stereographic Projection, and a systematic survey of the principal Classes of each System. Determination and description of the Physical Properties of Minerals, as Specific Gravity, Lustre, Hardness. etc. Time—Two hours per week.

TRINITY TERM.—(b) A thorough course on the Analysis of Minerals in the Dry Way with such apparatus and reagents as may be conveniently carried in the field. Twenty demonstrations of two hours each.

(*c*) Demonstrations on the Interpretation of Geological Maps and practice in drawing sections across them. Six demonstrations of two hours each.

(*d*) Lectures and demonstrations on Elementary Optical Mineralogy. Two hours per week.

MICHAELMAS TERM.—(*e*) Demonstrations on Petrology, including the determination of rock-forming minerals and description of rocks from hand specimens and with thin sections examined under the microscope. Each student will be required to prepare during the year and to describe six thin sections of rocks from specimens collected by himself.

Students of Arts and Civil Engineering are required to attend courses (*a*), (*c*), (*d*), (*e*). Students of Science and Mining Engineering attend courses (*a*), (*b*), (*c*) and (*e*). During the August-September vacation, students of all Faculties usually go into camp for a week or ten days for Field Work. Excursions to places of interest near Sydney are taken on Saturdays as opportunity offers.

Students are expected to provide themselves with a few small pieces of apparatus for the practical courses, most of which can be purchased at the Geological Department. The cost is approximately as follows for the different courses:—(*a*), 2s.; (*b*), 15s.; (*e*), 2s.

### 37.—For Third Year Students.

#### A—GEOLOGY.

Six demonstrations of two hours each on the Construction and Interpretation of Geological Maps and Sections will be given during the Trinity Term.

#### B—PALÆONTOLOGY.

A course of demonstrations in illustration of the lectures on Palæontology will be given during the Lent and Trinity Terms. Time—Two hours per week.

#### C—MINERALOGY.

(*a*) CRYSTALLOGRAPHY.—Instruction is given in the measurement of crystals with the Fuess reflecting goniometer (Model II.), and in projecting and drawing them to scale, during the Lent Term. Time—Six hours per week.

(b) OPTICAL MINERALOGY.—These demonstrations, given in the Trinity Term, are intended to accompany the lectures on Optical Mineralogy. Students are shown how to carry out various experiments illustrating the properties of doubly refracting minerals. Time—Four hours per week.

#### D—MICROSCOPY.

These demonstrations enable students to handle microscopes of various patterns, and to learn how to use them to the best advantage. They are also shown how to make numerous experiments illustrating the lectures on the Theory of the Microscope. The course will consist of four demonstrations of two hours each given during the Trinity Term.

#### E—PETROLOGY.

This course, given during the Michaelmas Term, will be divided into two nearly equal parts, the first providing instruction in some of the more refined methods of identifying the rock-forming minerals, the second being devoted to the study of a large series of hand-specimens and sections in illustration of the lectures on Petrology. Time—Six hours per week.

Third Year Science students will be expected to spend at least six hours each week at practical work in the department by themselves in addition to the time occupied by the fixed demonstrations.

#### BIOLOGY.\*†

##### 38.—ZOOLOGY.

A course of fifty lectures, illustrated by specimens and diagrams, and supplemented by occasional demonstrations.

I. Introduction to Biology. Main divisions of the science.

II. General structure and physiology of animals. *Amæba*. The cell: its structure and multiplication. The ovum and the sperm. Maturation and impregnation. Segmentation. Histology of animals. The various systems of organs, and their principal functions. Reproduction, asexual and sexual. Symmetry.

III. General account of the following phyla with descriptions of representative examples: Protozoa, Porifera, Coelenterata, Platydes, Nemathelminthes, Echinodermata, Annulata, Arthropoda, Mollusca, Chordata.

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\* A detailed syllabus of the various courses is to be had from the Registrar.

† See Regulation in reference to Microscopes, page 208.

## 39.—BOTANY.

A course of about thirty lectures.

I. General structure and physiology of plants. Unicellular and multicellular plants. The vegetable cell and its principal modifications. Systems of tissues. Histology of plants. Organs of plants.

II. General account of the following phyla of plants with descriptions of illustrative examples: Thallophyta, Bryophyta, Pteridophyta, Spermaphyta.

III. Physiology of higher plants. Nutrition. Growth. Sources and transformations of energy. Reproduction.

## 40-1.—ZOOLOGY AND COMPARATIVE ANATOMY.

## ADVANCED COURSES.

Two advanced courses, one on the Morphology and Embryology of the Invertebrata, with laboratory work,† for Science students of the Second Year; the other on the Morphology and Embryology of the Vertebrata, with laboratory work, for Science students of the Third Year.

## 42.—BOTANY—ADVANCED COURSE.

A short course on the Physiology of Plants, with practical work, for Science students of the Second Year.

## 43.—PRACTICAL BOTANY.

A course of practical work on the Morphology of Plants.

The following are studied:—*Protococcus*, *Torula*, *Spirogyra*, *Penicillium*, *Aspergillus* or *Mucor*, *Agaricus*, *Bacterium*, *Desmids*, *Diatoms*, *Cedogonium*, *Vaucheria*, *Hormoseira*, *Marchantia* or *Polypodium*, *Pteris*, *Pinus*, *Ulmus*, *Zea*, the flowers of various Angiosperms.

## 44.—PRACTICAL ZOOLOGY—ELEMENTARY COURSE.

An elementary course for Medical and Science students of the First Year.

The following animals are studied:—*Paramaecium*, *Vorticella*, *Obelia*, *Nereis*, *Asterina*, *Helix*, *Palinurus*, *Trygonoptera*, *Columba*, *Lepus*.

Students of Medicine and Science of the First Year take 38, 39, 43 and 44. Students of Science of the Second Year take 40

and 42; Third Year 41. Nos. 39, 42 and 43, or Nos. 38 and 44, constitute the Biology for Arts students of the Second and Third Years. Pharmacy students attend No. 39.

**BOOKS RECOMMENDED:**

**For First Year Students.**

**ZOOLOGY.**—Thompson's "Outlines of Zoology" or Parker and Haswell's "Manual of Zoology." Reference should also be made to the larger works recommended below for the use of Second and Third Year students. For some parts of the Practical Zoology it will be useful to refer to Marshall and Hurst's "Practical Zoology" and T. J. and W. N. Parker's "Practical Zoology."

**BOTANY.**—Vines' "Elementary Botany." For reference, Strasburger's "Text-book of Botany." For the Practical Botany, Bower's "Practical Botany for Beginners," or Campbell's "University Text-Book of Botany."

**For Second Year Students.**

**ZOOLOGY.**—Parker and Haswell's "Text-book of Zoology," Vol. I., or Sedgwick's "Text-book of Zoology," Vol. I. For reference, Korschelt and Heider's "Text-book of the Embryology of Invertebrates"; Ray Lankester's "Treatise on Zoology."

**BOTANY.**—Vines' "Text-book of Botany." Darwin and Acton's "Practical Physiology of Plants" (2nd ed.).

**For Third Year Students.**

Parker and Haswell's Text-book, Vol. II. Marshall's Embryology. Wallace's "Darwinism." Lloyd Morgan's "Animal Life and Intelligence."

**BIOLOGICAL LABORATORIES AND MUSEUM.**

The Laboratories, together with the Departmental Museum, are open to students of Biology daily from 9 a.m. to 5 p.m., excepting on Saturdays, when they are closed at 1 p.m., and Sundays and Public Holidays, when they are not opened. The practical teaching is confined to certain stated times, but students are at liberty to work in the Laboratory or the Museum at any time within the limits specified. The accommodation for research work is at present limited, but, so far as practicable, every encouragement and assistance are given to graduates and others desiring to pursue lines of original investigation on biological subjects.

**HUMAN ANATOMY.**

**45.—DESCRIPTIVE ANATOMY.**

**A.—For Medical Students of First Year.**

Daily during Michaelmas Term.

Introduction. History of the Science of Anatomy. Various aspects of anatomical study. Methods of study. Nomenclature

and Terminology. General characteristics of bodily structure. Preliminary account of human ontogeny. Establishment of rudiments of various bodily systems and organs.

B.—For Medical Students of Second Year.

Daily during Lent and Trinity Terms.

Account of the Development and Descriptive Anatomy of Osseous, Articular, Muscular, Vascular, Splanchnic and Integumentary systems.

The lectures are illustrated by anatomical preparations, both naked-eye and microscopical, and by dissections, lantern-slides and diagrams.

*Text Books.*—Text Book of Anatomy, edited by D. J. Cunningham (Morris' Treatise on Anatomy, 3rd Ed., or Gray's Anatomy, 15th Ed., may, if desired, be adopted in place of Cunningham's Text Book.) The Development of the Human Body, by J. P. McMurrich; or, Human Embryology, by Arthur Keith (2nd ed.), may be used in the study of the developmental aspect of the science. If a special atlas of illustrations be desired, the Hand Atlas of Human Anatomy, W. Spalteholz, translated by L. F. Barker, will be found most suitable.

*For Reference.*—Quain's Anatomy, 10th Ed.; various sections of Schaefer's Physiology; Minot's Human Embryology; The Cell, by E. B. Wilson; Atlas of Central Nervous System, by Flatau and Jacobson.

#### 46.—DENTAL ANATOMY.

A course of ten lectures upon the Anatomy of the teeth, including their structure and development, will be given during Trinity Term to First Year Students in Dentistry.

*For Reference.*—Tomes' Dental Anatomy.

#### 47.—REGIONAL ANATOMY.

For Medical Students of the Third Year.

Daily during Lent and Trinity Terms.

The special anatomy of the human subject is described topographically, and the descriptions are systematically illustrated by demonstrations upon the dead body. This course includes a series of demonstrations on Neurology.

#### 48.—PRACTICAL ANATOMY OR DISSECTIONS.

The dissecting rooms are open daily, to members of the Practical Class only, during all the three terms, from 9 a.m. to 5 p.m., under the supervision of the Professor and Demonstrator. Parts for dissection will be allotted by the Demonstrator. During each of the five terms in which attendance on Practical Anatomy

is obligatory in accordance with the University By-laws, every student must be actually engaged in dissection, so far as the allotment of parts renders this at any time possible.

Not less than three hours should be devoted daily to actual work in the dissecting room, where alone a practical familiarity with the macroscopical details of human structure can be acquired.

Credit for having dissected a part will be given only where diligence and attention to the work, and a fair degree of proficiency in actual dissection, have been exhibited. It is necessary to have dissected each "part," at least once, before admission to the Third Year Examination. Prosectors for the Anatomy Classes are selected from among the best dissectors.

*Text Book for Practical Work.*—Cunningham's Manual of Practical Anatomy, 3rd edition.

#### ANATOMICAL LABORATORY.

The Professor will give all possible assistance to any advanced student or other competent person who may desire to pursue some special study or enter upon some original investigation in Anatomy; provided that, if not a member of the University, the applicant shall make special arrangements with the Registrar.

#### 49.—PHYSIOLOGY—JUNIOR AND SENIOR.

These classes include a description of the microscopical anatomy of the tissues and organs of the body, a special account of the Physics and Chemistry of the body, and of the functions of all its various parts.

The course is fully illustrated by experiments, diagrams, models, &c., &c.

#### 50.—PRACTICAL PHYSIOLOGY.

Conducted conjointly by the Professor and his Assistants. The work of this class includes:—

- I. PRACTICAL HISTOLOGY.\*—In which each student prepares, examines, and preserves for himself specimens of the tissues and organs of the body. The student is shown all the more important processes in histological work, and, where practicable, performs them himself.

\* See Regulation in reference to Microscopes, page 208

**II. EXPERIMENTAL PHYSIOLOGY.**—In this class each student performs for himself, and obtains graphic records of, the simpler experiments dealing with the physiology of muscle and nerve, the circulation and respiration. He also obtains practical training in the use of those physiological instruments employed in clinical work, *e.g.*, ophthalmoscope, laryngoscope, perimeter, sphygmograph, &c.

**III. PRACTICAL CHEMICAL PHYSIOLOGY.**—In which each student makes an examination of the principal proteids, carbohydrates and fats contained in animals and plants. He then examines chemically blood, muscle, milk, bile, saliva, and gastric and pancreatic juices, and performs experiments in artificial digestion with the three latter. After this he proceeds with the qualitative and quantitative (gravimetric and volumetric) analysis of normal and abnormal urine. Special attention is drawn to the clinical bearing of the work.

In these courses the use of the apparatus (except microscope) and of the reagents is *gratis*.

#### 51.—SPECIAL COURSE FOR SCIENCE AND ARTS STUDENTS.

In addition to the above, a Special Course of Instruction will be held for Science and Arts students (at times to be arranged) in which demonstrations will be given in **ELEMENTARY PHYSIOLOGICAL ANATOMY**.

The course will be illustrated by means of dissections models, diagrams, microscopical preparations, &c., &c., &c.

*Text Books for Physiology.*—Foster's Text Book of Physiology; Schäfer's Text Book of Physiology; Halliburton's Handbook of Physiology; Waller's Human Physiology; G. N. Stewart's Manual of Physiology; Starling's Elements of Human Physiology; Halliburton's Essentials of Chemical Physiology; Brodie's Essentials of Experimental Physiology; Quain's Anatomy, or Schäfer's Essentials of Histology and Directions for Class Work in Practical Physiology.

#### THE PHYSIOLOGICAL LABORATORY.

The Physiological Laboratory (including the special laboratories for Histology, Experimental Physiology, Physiological Chemistry, and the workshop) is open daily from 10 a.m. to 5 p.m.; Saturdays, 10 a.m. to 1 p.m.



Junior students are admitted at stated times, and receive instruction from the Demonstrator. Senior students can use the laboratory at any time during Term, and most vacations, by arrangement with the Professor, and are encouraged in the prosecution of original investigations under his direction, and that of the Demonstrator.

Any gentlemen, whether or not members of the University, wishing to undertake any original research in the laboratory, can do so by application to, and arrangement with, the Professor, who will afford suitable investigators every assistance in his power.

#### 52.—PHARMACOLOGY.

Laboratory Class in Pharmacology.—In this class each student will examine the chemical characters of the principal groups of active substances in plants, will perform the tests for the chief alkaloids and drugs, and will carry out the main methods of separation for the common poisons, &c. The student will then proceed to the examination of the effect of the principal drugs on secretion, muscle, nerve, heart, respiratory apparatus, &c., and the properties of some of the more important therapeutic agents will be investigated in detail. The different parts of the practical work will be introduced by the necessary didactic instruction, and demonstrations of experiments not readily performed by the student will be freely shown.

#### 53.—MATERIA MEDICA AND THERAPEUTICS.

##### (1) For Medical Students.

A course of 10 lectures on Posology, and 15 on Special Therapeutics, will be instituted in due course for medical students in their fifth year.

##### (2) For Dental Students.

A course of 20 lectures on the Materia Medica and Therapeutics of the more important substances employed by Dentists, and adapted to the special requirements of the latter, will be given during Lent Term.

##### (3) For Pharmaceutical Students.

A course of lectures on Pharmaceutical Chemistry and Pharmaceutical Botany, treating primarily of the substances officinal, and secondarily of the more important substances not

officinal in the British Pharmacopœia, will be given to Pharmaceutical students. This course will consist of 50 lectures, and will be illustrated by diagrams, macroscopical and microscopical specimens, and such other means as may prove feasible.

*Text Book.*—Companion to the Pharmacopœia, *Squire*; *Materia Medica*, *Greenish*.

*For Reference.*—*Pharmacographia*, *Flückiger and Hanbury*; *Extra Pharmacopœia*, *Martindale and Westcott*; *Pharmacopœia*, *White and Humphrey*.

(The courses on Special Therapeutics and on Pharmaceutical Chemistry and Pharmaceutical Botany are optional for medical students.)

#### 54.—PRINCIPLES AND PRACTICE OF MEDICINE.

W. Camac Wilkinson, B.A., M.D., Lond.

General observations upon Symptoms, objective and subjective.—Variations of Temperature and of Pulse, and state of Tongue, Skin and Digestive Functions in Disease. Infection and Intoxication. Ptomaine Poisoning. Botulismus. Infection and Infectious Diseases.

A. Septicæmia. Sapræmia. Pyæmia. Erysipelas. Septic Endocarditis. Acute Rheumatism. Furunculosis. Carbuncle. Epidemic Cerebro-spinal Meningitis. Influenza. Diphtheria. Tetanus. Typhoid Fever. Malta Fever. Relapsing Fever. Cholera. Plague. Tuberculosis. Leprosy. Actinomycosis and Madura Foot. Syphilis. Glanders. Anthrax. Malaria. Hæmoglobinuric Fever. Measles. Scarlet Fever. Typhus. Smallpox. Vaccinia. Chickenpox. Mumps. Whooping Cough. Dengue. Yellow Fever. Tropical Diseases. Rabies.

B. Parasitic Diseases. Hydatids. Intestinal and other Worms. General Diseases.

C. Diseases of Organs and Systems.

*Text Books.*—Osler's *Medicine*; Taylor's *Medicine*.

#### 55.—PRINCIPLES AND PRACTICE OF SURGERY

Dr. A. MacCormick.

Introduction—Principles and Practice.

1. HEALTHY NUTRITION.

## 2. ABERRATIONS FROM HEALTHY NUTRITION.

- a.* Hypertrophy. *b.* Atrophy. *c.* Inflammation.  
*d.* Traumatism. *e.* Surgical Diseases. *f.* Regional Surgery,—injuries and diseases peculiar to parts of the body.

**TEXT BOOKS RECOMMENDED.**—Walsham's Surgery; Rose and Carless' Manual; Cheyne and Burchard's Manual; Treves' Manual of Surgery; MacCormac's Operations; Barker's Manual; Jacobson's Operations of Surgery; Treves' Operations.

## 56.—MIDWIFERY.

Sir James Graham, M.A., M.D.

Anatomy and Physiology of the several organs and structures connected with Ovulation, Gestation, Parturition, &c.

Gestation, its Signs, Symptoms, Duration and Abnormalities.

The Phenomena of Natural and Complicated Labour:

The Induction of Premature Labour and Obstetric Operations.

The Management of the Puerperal State.

**Text Books.**—Playfair's Manual of Midwifery; The Science and Art of Obstetrics, Parvin; Galabin's Manual of Midwifery; Herman's Difficult Labour.

## 57.—DISEASES OF WOMEN.

Mr. J. Foreman, M.R.C.S.

Introductory.

Anatomy of the Female Pelvic Organs.

Diseases of the Vagina.

Diseases of the Uterus and Fallopian Tubes.

Diseases of the Ovaries.

Pelvic Tumours.

**BOOKS RECOMMENDED.**—Galabin's Students' Guide to Diseases of Women; McNaughton-Jones' Manual of Gynæcology (6th edition), Hart and Barbour.

## 58.—PATHOLOGY.

Professor D. A. Welsh.

For the study of Pathology the following courses are provided:—

I. A course of Lectures and Demonstrations in **GENERAL PATHOLOGY**, or the study of the general ætiology of disease and of morbid processes in general, including—

1. Retrograde tissue changes (Atrophy, Degeneration, Necrosis).
2. Progressive tissue reactions and formative processes (Inflammation, Repair, Hypertrophy).
3. Tumour-growth (Neoplasia).
4. General circulatory derangements (Arterial and Venous Hyperæmia, Dropsy, Embolism, Thrombosis).
5. Invasion by Animal Parasites.
6. Infection, Intoxication, Immunity, including a systematic account of the more important Pathogenic Bacteria.

II. A course of **PRACTICAL PATHOLOGY**.\*—The work of the Practical Class consists of—

1. Practical training in some elementary histological methods.
2. A systematic study under the microscope and with the naked eye of selected pathological lesions illustrative of typical morbid processes and conditions described under General and Special Pathology.

III. A course of Lectures and Demonstrations on **SPECIAL PATHOLOGY**, or a systematic study of the more important Diseases, with special reference to the organs and tissues affected, including the Blood and certain correlated tissues (Bone Marrow, Lymphoid Tissue, etc.), various Glandular Organs, and the structures of the Lymphatic, Circulatory, Respiratory, Alimentary, Urinary, Nervous, and Osseous Systems.

IV. A course of **SPECIAL BACTERIOLOGY** for Senior students of and Graduates in Medicine. This class is essentially practical. Its object is the study of the chief Pathogenic Bacteria, with special reference to Clinical Diagnosis. It consists, therefore, of laboratory instruction and demonstrations in

- (1) General bacteriological technique, including methods of sterilisation, preparation of culture media, methods of isolation and of cultivation, methods of staining, separation of bacterial products, inoculation, etc.

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\* See Regulation in reference to Microscopes on page 208.

- (2) The systematic examination of the more important bacteria concerned in disease, including their distinctive characters under the microscope and in cultivation, their localisation in the tissues, their mode of action, etc. Some of the non-pathogenic bacteria may also be studied.

V. A short course of PRACTICAL HÆMATOLOGY is associated with the course of Special Bacteriology, and may be attended without extra fee. It consists of practical instruction in methods of preparation, fixation, staining, and examination of blood films with special reference to Clinical work.

N.B.—Microscopes for practical work in Bacteriology and Hæmatology require a suitable condenser, and a  $\frac{1}{2}$ -inch homogeneous immersion objective. A triple dust-proof nose-piece will be found a great convenience. See regulations in reference to microscopes on pages 203, 208.

VI. CLINICAL PATHOLOGY AND POST-MORTEM EXAMINATIONS.—Students are urgently recommended to avail themselves of every opportunity that may be given in the pathological laboratory and theatre of the Royal Prince Alfred Hospital for the study of morbid anatomy, and the relation of clinical phenomena to morbid processes.

VII. POST-GRADUATE COURSES.—Graduates and Licentiates in Medicine may, on application to the Professor, attend the special laboratory courses on Bacteriology and Hæmatology along with senior students. If, however, a sufficient number should desire it, a separate class for graduates and licentiates alone may be held.

Special post-graduate courses on other subjects will, from time to time, be announced.

ORIGINAL RESEARCH.—Original research in the subjects of Pathology and Bacteriology will be encouraged so far as the limited equipment and accommodation in the Laboratory will permit.

*Text Books.*—The text books prescribed are *Coats's* "Manual of Pathology" (revised by Sutherland), and *Muir and Ritchie's* "Manual of Bacteriology." For further information in Histology, *Woodhead's* "Practical Pathology" may be consulted; in General Pathology, the text books by Thoma (translated by Bruce), by Sidney Martin, by Hamilton, and by Lazarus-Barlow, are worthy of consultation; and most of the pathological

articles and descriptions in the recent text books of medicine by Clifford Allbutt, by Gibson, by Osler and by Allchin, will be found of great value and interest.

#### 59.—FOR STUDENTS OF DENTISTRY.

Students of Dentistry are required to attend the following courses :—

- (1.) General Pathology (including Bacteriology) as prescribed for students of medicine.
- (2.) Practical Pathology, as prescribed for students of medicine, in so far as it is illustrative of General Pathology, with, in addition, a short course on the special pathology and bacteriology of the mouth and teeth.

TEXT BOOK PRESCRIBED.—Goadby's "Mycology of the Mouth."

#### 60.—MEDICAL JURISPRUDENCE.

Mr. Sydney Jamieson, B.A., M.B., Ch.M.

Aims, objects and scope of the subject. Legal criminal procedure. Medical evidence. Identification in the living and dead. Death in its medico-legal relations. The examination of the dead body. The signs of death. Medico-legal forms of death.—(1) Drowning, (2) Suffocation, (3) Hanging, Strangulation and Throttling, (4) Lightning and Electricity, (5) Burns and Scalds, (6) Criminal Neglect and Starvation, (7) Cold and Exposure, (8) Heat Apoplexy, (9) Mortal Wounds. Differential diagnosis of states of insensibility. Wounds in their medico-legal relations. Examination of blood and other stains. Legal relations of sexual incidents. Signs of pregnancy and delivery. Criminal abortion. Infanticide. Legal relation of insane states. Toxicology.

#### 61.—PUBLIC HEALTH.

Mr. W. G. Armstrong, B.A., M.B., Ch.M.

PUBLIC HEALTH.—Meteorology—Temperature, winds, humidity, rainfall, atmospheric pressure, climate. Air—Composition, impurities, ventilation, amount required, natural and artificial ventilation, examination of air. Soil—Ground water, ground air, organic matter in soil, classification of soils. Water—Quantity and supply, quality, impurities, purification, examina-

tion of water supplies. Food—Classification of foods, dietaries, preservation of foods, unsound food, diseases caused by food. Sanitary engineering—Dwellings, sanitary defects, disposal of refuse, wet and dry methods, sewers, sewage disposal. Disease—Infectious diseases, history of epidemics, means of prophylaxis, occupational diseases. Vital statistics. The law of public health—Notification, preventive measures, nuisances, insanitary habitations, protection of food supplies.

### 62.—PSYCHOLOGICAL MEDICINE.

Dr. Chisholm Ross.

This course comprises:—

- I. An account of the Nature, Causes, Classification, Social and Medico-Legal Relations of Insanity.
- II. An account of the various forms of Mental Disease or Disorder; their Clinical History, Diagnosis, Prognosis and Treatment.
- III. Practical demonstrations at the Hospital for the Insane of the various types of Mental Disease or Disorder.

### 63.—OPHTHALMIC MEDICINE AND SURGERY.

Mr. F. Antill Pockley, M.B., Ch.M.

Diseases and Injuries of the Conjunctiva, Cornea, Sclerotic, Iris and Ciliary Body, and Crystalline lens.

Glaucoma.

Refraction and Accommodation—Emmetropia, Ametropia, Hypermetropia, Myopia, Astigmatism: Asthenopia.

Examination of the Eye, Ophthalmoscopy.

Affections of the Vitreous Humour, of Optic Nerve, Retina, and Choroid.

Affections of Sight unaccompanied by any definite intra-ocular signs:—Amblyopia and Amaurosis, Colour Blindness, &c.

Perimetry:—Defects in Visual Field, Hemianopsia, &c.

Affections of the Ocular Muscles: Paralysis, Strabismus, &c.

Diseases of the Eyelids and Lachrymal Apparatus.

Operations.

BOOKS RECOMMENDED.—*Text Books*—Handbook of Diseases of the Eye, *Swanzy*; Diseases of the Eye, *Nettleship*; Diseases of the Eye, *Berry*.

*For Reference*.—System of Diseases of the Eye, *Norris and Oliver*.

## 64.—DESCRIPTIVE GEOMETRY.

**PLANE GEOMETRY.**—Scales. Constructions relating to straight lines, polygons, circles and circular arcs, conic sections, cycloidal curves, involutes and spirals.

**SOLID GEOMETRY.**—Principles of orthographic projection. Representation of points, lines and planes by their projections and traces. Elementary problems on lines and planes. The determination of the projections of simple solids, under given conditions of position. The interpenetration of given solids. Generation and classification of surfaces. Development of surfaces. Tangent planes. The projection of shadows. Principles of perspective projection. Principles of isometric projection. Spherical projections.

During Lent Term students are required to complete a series of practical exercises and problems to illustrate the work dealt with in the lectures.

A short course on "Graphics" is also included here for the present.

**BOOKS RECOMMENDED FOR REFERENCE.**—Descriptive Geometry, *A. E. Church*; Descriptive Geometry, *J. Woolley*; Practical Plane and Solid Geometry (Advanced), *Harrison & Baxandall*; Elements of Practical Geometry, *T. Bradley*.

## 65.—MECHANICAL ENGINEERING.

**MECHANICAL ENGINEERING I.**

**Engineering mechanics.** The application of the principles of dynamics to various practical problems. Equilibrium of machine parts. Work. Power. The indicator card. Friction. Efficiency and mechanical advantage of machines. Transmission and absorption dynamometers. Moments of inertia. Fly-wheel action. Reciprocating motion. Hydrostatic problems. Simple hydraulic machines.

**Kinematics of machines.** The science of mechanism. Constraint of plane motion. Virtual motion in mechanisms. Relative velocities in mechanisms. Diagrams of velocity and acceleration. Spur-wheel trains. Screw gears. Profiles for wheel-teeth. Epicyclic gearing. Cam trains. Straight line motions. Inversion of mechanisms. Analysis of important mechanisms. Systems of classification.

**History of the development of heat motors, and the elements of thermo-dynamics.** Sources of energy. Fuel. Combustion. Properties of steam. The operation of steam and gas engines. Reversed heat motors.



**BOOKS RECOMMENDED FOR REFERENCE.**—Perry's Applied Mechanics; Church's Mechanics of Engineering; Durley's Kinematics of Machines; Kennedy's Mechanics of Machinery; Thurston's History of the Steam Engine; Ewing's Steam Engine; Barraclough's Tables of the Properties of Steam.

### MECHANICAL ENGINEERING II.

Advanced theory of heat engines. Conditions affecting economy. The cyclical flow of heat in the metal cylinder walls of heat engines. Detailed consideration of heat losses. Standard methods of conducting engine trials. Boilers. Economisers. Superheaters. Condensers. Cooling towers. Injectors. Refrigerating machines and processes. Use of compressed air. Steam turbines. Modern gas engines. Use of cheap gas.

Theory of machines. Various machine problems. Friction of machines. Lubrication. Dynamics of the steam engine. Crank effort diagrams. Fly-wheels. Governors. Inertia of reciprocating parts. Balancing of machines.

Hydraulic machinery. Elevators. Reciprocating pumps and pressure engines. Impulse and reaction turbines. Centrifugal pumps.

**ADDITIONAL BOOKS RECOMMENDED FOR REFERENCE.**—Boulvin's The Entropy Diagram and its Applications; Perry's Steam Engine; Thurston's Manual of the Steam Engine; Pullen's Steam Engineering; Barraclough's Steam Engine Problem; Carpenter's Experimental Engineering; Dalby's Balancing of Machines; Bovey's Hydraulics; Bodmer's Hydraulic Motors.

### MECHANICAL ENGINEERING III.

Discussion of general problem of power production. Finance as a factor in engineering enterprises. Cost of power. Sources of energy. Hydraulic power stations. Power-house design and equipment (excluding all electrical detail). Choice of engines, boilers and auxiliary plant. Methods of power distribution. Care of engines, boilers and machinery. Boiler inspection. Causes of boiler explosions.

**BOOKS RECOMMENDED FOR REFERENCE.**—Hutton's Mechanical Engineering of Power Plants; Unwin's Development and Transmission of Power; Myer's Steam Power Plants. Students are expected to read the current numbers of certain of the Engineering Journals.

### MECHANICAL ENGINEERING LABORATORY.

The following syllabus indicates generally the experimental work which students attending the foregoing courses of lectures on Mechanical Engineering I. and II. are required to carry out in the laboratory.

I. The use of various forms of slide rules and calculating instruments. Verniers, micrometer-calipers, wire gauges and standards. The planimeter. Working-up indicator cards. Measurements of friction coefficients. Efficiency and mechanical advantages of simple machines such as screw press, pulley block tackle, differential pulley and worm-wheel crab. Energy of flywheel. Moments of inertia. Measurements with rope brake and Prony brake. Transmission dynamometers. Calibration of pyrometers, pressure gauges and steam indicators. The engine indicator. Preliminary tests of steam engine.

II. Complete engine and boiler tests. Gas engine tests. Investigation of heat losses. Tests of lubricants. Determination of friction in line shafting, etc. Tests of hydraulic motors.

In connection with Mechanical Engineering III., such opportunities as occur will be taken for conducting tests of outside power plants, and encouragement will be given to any senior students who are desirous of making special investigations.

#### 66.—APPLIED MECHANICS.

PRELIMINARY COURSE ON MATERIALS AND STRUCTURES.—The behaviour of materials when subjected to tensile, compressive, transverse, shearing and torsional stresses in testing machines. The various methods used for ascertaining the stresses in structures. Bending moments and shearing stresses in beams and girders. Moments of resistance, and their determination by graphic and analytical methods. The stresses in simple braced structures, such as roofs and lattice girders. The endurance of materials and the determination of the safe working stresses in structures. The design of simple structures, such as beam bridges of timber, cast-iron and wrought-iron, girders, roof trusses and lattice girders.

BOOKS RECOMMENDED.—Unwin's *Machine Design*; *Engineering Construction in Iron, Steel and Timber*, by Prof. Warren, published by Longmans.

#### 67.—CIVIL ENGINEERING.

##### CIVIL ENGINEERING I.

PRELIMINARY COURSE IN ENGINEERING CONSTRUCTION.—The location of Roads, Railways, and Pipe Lines, and the preparation of the necessary plans and sections. Earthworks, cuttings and embankments. Waterways and Culverts. Timbering. Tunnelling. Storage and other Reservoirs. Tanks, dams, water courses and conduits.

## CIVIL ENGINEERING II.

A. HYDRAULIC ENGINEERING.—The water supply of towns, and the design and construction of the various works required in connection therewith.

SANITARY ENGINEERING.—Various systems of sewerage, House drainage. Construction of Sewage Works. Sewage disposal. Destructors and desiccators.

HARBOUR ENGINEERING.—Description and classification of the principal harbours. The design and construction of breakwaters and harbour works, docks, &c.

RIVERS AND CANALS.—The design and construction of the various works in connection with river improvements. Ship canals, &c.

B. RAILWAY ENGINEERING.—The design and construction of railway works.

Permanent way. Signals. Points and crossings. Interlocking systems.

Passenger and Goods Stations.

Locomotives. Rolling stock. Brakes. Couplings and other railway appliances.

The construction of roads and streets. Paving of carriage ways.

BOOKS AND PAPERS RECOMMENDED FOR REFERENCE.—Humber's Water Supply; the Manchester Waterworks, by Bateman; Spon's Dictionary; Waring's Sewerage and Land Drainage; Sewage Disposal, by W. Santo Crimp; Stevenson's Harbours and Docks; Stevenson's Rivers and Canals; Vernon Harcourt's Civil Engineering; Vernon Harcourt's Harbours and Docks; Vernon Harcourt's Rivers and Canals; the Proceedings of the Institution of Civil Engineers, and also of the American Society of Civil Engineers: the various reports of Sir John Coode; the various reports on the Sewerage of the principal towns of Australia; Roads and Streets, by D. K. Clark; Barry's Railway Appliances; Gribble's Preliminary Surveys and Estimates; Wilcocks' Egyptian Irrigation. Buckley's Irrigation Works in India. Students are expected to read the current numbers of the various Engineering Journals.

## CIVIL ENGINEERING III.

A. The calculation of stresses in braced structures for fixed and moving loads.

The design of roofs, girders, trusses and pit heads, masonry arches, retaining walls, dams, piers. Foundations and temporary works in connection with Engineering Structures.

B. Theory of long columns. Equations of slope and deflection of discontinuous and continuous beams. The deflection of bridges. Redundant structures. Swing and other movable bridges. Arched, suspension and cantilever bridges.

Design of foundations for bridge piers and abutments. Steel construction in connection with high buildings.

BOOKS RECOMMENDED FOR REFERENCE.—Engineering Construction in Iron, Steel and Timber, by Professor Warren (Longmans); Rankine's Applied Mechanics and Civil Engineering; Weyrauch on the Structure of Iron and Steel; Unwin's Testing of Materials; Johnson's Materials of Construction; Ritter on Iron Bridges; Lanza's Applied Mechanics; The Strains in Framed Structures, by Dubois; R. H. Smith's Graphics; Clarke's Graphic Statics; Burr's Stresses in Bridges and Roof Trusses; Claxton Fidler's Practical Treatise on Bridge Construction; Report of the New South Wales Railway Bridges Inquiry Commission; Johnson's Theory and Practice of Modern Framed Structures; Baker's Masonry Construction; Patton's Foundations.

#### CIVIL ENGINEERING LABORATORY.

Students attending Courses II. and III. in Civil Engineering are required to devote a minimum of 120 hours in the laboratory to the investigation of the properties of materials, including iron, steel, timber, cement, reinforced concrete, &c.; students attending Course III. only are required to devote a minimum of 60 hours to laboratory practice.

#### 68.—ELECTRICAL ENGINEERING.

##### ELECTRICAL ENGINEERING I.

Design, construction, and operation of direct current dynamos and motors.

Electrical instruments. Switches and fuses. Switchboards.

Distribution systems. Cable manufacture. Laying underground cables.

Electric illumination. Arc and incandescent lamps. Street lighting.

Electric light and power wiring.

Storage batteries and their operation.

Motor driving and special applications.

##### ELECTRICAL ENGINEERING II.

Design of large electric generators for direct current and multiphase alternating current.

Static transformers. Single and three phase. Rotating transformers.

Induction motors. Single phase motors.

Isolated electric installations. Electric power stations. Sub-stations.

Long distance power transmission.

Electric tramways. Overhead and conduit systems. Tram-car equipments.

Electric railways. Third rail. Three phase. Single phase.

Electric heating—welding. Electrolytic and furnace work.

BOOKS OF REFERENCE.—Magnetic Induction, *Ewing*; Dynamo Electric Machinery, *Thompson*; Electric Generators, *Parshall & Hobart*; Polyphase Electric Currents, *Thompson*; Alternate Current Transformer, *Fleming*; Alternate Current Transformer, *Weekes*; Induction and Continuous Current Motors, *Hobart*; Central Electric Stations, *Wordingham*; Electric Traction, *Rider*; Switchgear, *Andrews*; Secondary Batteries, *Wade*; Starters and Regulators, *Krause*; The Electric Arc, *Ayrton*; Electric Furnaces, *Moissan*; Electrical Engineering Testing, *Parr*; Testing of Continuous Current Machines, *Kinzbrunner*; Electric Traction Pocket Book, *Dawson*; Electrical Pocket Book, *Foster*; Electrical Problems, *Hooper*; Examples in Electrical Engineering, *Joyce*.

Students will be required to follow a systematic course of numerical problems and examples illustrating the foregoing lectures.

Instruction will also be given in electrical design, the working drawings of which will be carried out in detail in the drawing office.

#### ELECTRICAL ENGINEERING LABORATORY—COURSES I. AND II.

Students in Electrical Engineering will be required to attend a systematic series of demonstrations in laboratory work, including commercial electrical measurements. Tests of direct current, single, two, and three phase machines; single and three phase alternators, and induction motors. Separation of losses; characteristic curves; temperature rise of various loads; voltage drop. Efficiency tests and investigation of the performance of combined plants for the generation and utilisation of electric energy.

Visits will be made from time to time to various electrical works of interest in and around Sydney.

#### 69.—ENGINEERING DRAWING AND DESIGN.

*Lecture Courses.*—FIRST YEAR.—Fundamental principles. Nature and uses of materials for machine parts. Bolts, studs.

Connection of parts by pins, keys, and cotters. Pipes and flanges. Shafts and couplings. Plummer blocks. Hangers. Pulleys. Connecting rods. Pistons. Stuffing boxes and glands. Valves. Riveted joints.

**SECOND YEAR.**—Detailed design of a simple engine and boiler. Cylinders. Valve gears. Reversing gears. Pumps. Design of boilers to Board of Trade and Lloyd's requirements. Riveting. Staying. Methods of manufacture and influence on design. Elementary costs.

**THIRD YEAR.**—Detailed design of structures: Preparation of specifications, estimates, etc.

**FOURTH YEAR.**—Mechanical and Electrical: Advanced course in the design of machinery and prime movers, layouts for piping, etc.

Mining: Detailed design of mining plant. Layout of machinery, boilers, piping, etc.

#### **DRAWING OFFICE PRACTICE.**

**FIRST YEAR.**—Lettering and printing. Drawing of details from working drawings. Sketching of machine parts. Preparation of tracings.

**SECOND YEAR.**—Detailed drawings of simple engine and boiler, hoisting engine, crane, or similar machine.

**THIRD YEAR.**—Detailed drawings of a structure, applicable to the course taken by the student. Quantities, specification, and estimate for same.

**FOURTH YEAR.**—Detailed drawings, specifications, etc., on work of the nature given in the above lecture courses.

#### **THE ENGINEERING LABORATORY.**

The Engineering Laboratory is fitted with apparatus for systematic instruction in the experimental methods which are used to determine the physical constants of the chief materials of construction and the numerical data employed in engineering calculations. The Laboratory is provided with a Buckton testing machine, capable of exerting a force of 100 tons, especially arranged for accurate tests of large sized specimens such as beams and columns; also with a Greenwood and Batley machine of 100,000 pounds capacity, both being connected to an accumulator, and provided with various descriptions of apparatus for measuring strains, autographic recording apparatus, micrometers,

verniers, &c., including a complete outfit of Marten's mirror extensometers. Both machines are adapted for testing in tension, compression, crossbreaking and torsion. An impact testing machine and various pieces of apparatus for testing cements, wire, the lubricating values of oils, and the calorimetric value of fuels. An experimental compound condensing engine and locomotive boiler, provided with indicators, brakes, calorimeters, and all necessary apparatus for testing the efficiency under various conditions of working. A Stockport gas engine, and a Crossley gas engine fitted with starter. Apparatus for the determination of the friction with materials of the form and with the velocities common in engineering work, the measurement of the energy spent in driving machines, and the useful work done by them. Continuous current and three-phase alternating current generators. Continuous current and induction motors. Three phase transformer. Switchboards, and instruments necessary for testing purposes.

#### 70.—SURVEYING.

The course consists of lectures and field demonstrations. Students are also required to make surveys for themselves, and to undertake the whole of the necessary computations, to prepare plans and drawings, etc., and to make and reduce astronomical observations for time, latitude, meridian, etc.

The lectures treat of the history and development of the art of land, engineering, mining, hydrographical and hydraulic, and geodetical surveying, and astronomical operations in connection therewith; and discuss important modern methods.

The general mathematical theory, including the applications of the theory of probability (least squares, etc.), is treated in the light of the physical and economic limitations to which practical survey operations are subject. The mathematical theory of surveying instruments and of their use, the practical elimination of avoidable error, the general scheme of numerical computation, and the application of graphic methods in regard thereto, together with typical problems which present themselves in survey, are among the subjects considered in the lectures.

Cartography is discussed in regard to its general conventions, the theory of plan drawing and map construction. The important projections in relation thereto are outlined. The special features of hydrographic surveying, including the observation and reduction of tidal phenomena, hydraulic surveying,

the general mathematical theory of the flow of water under different circumstances, constitute part of the ordinary course for all students.

In mining surveying, the special characteristics, instruments, and problems that arise in connection with survey operations in various mines, and with the determination of the strike, dip, and intersection of geological strata, the direction of bores, etc., are the subject matter of the lectures.

Part of the course is common to all students.

[NOTE.—Should a sufficient number of applications be received for other branches of surveying, such as military, quantity, and agricultural surveying, the magnetic survey of a territory, higher geodesy, and higher geodetical astronomy, special arrangements will be made by the lecturer to give a course thereon.]

**BOOKS RECOMMENDED FOR REFERENCE.**—Johnson's Theory and Practice of Surveying; Jackson's Aid to Survey Practice; Bauernfeind's Elemente der Vermessungskunde; Jordan's Handbuch der Vermessungskunde; Wilson's Topographic Surveying; Downing's Hydraulics; Ganguillet's and Kutter's Flow of Water in Rivers and Channels; Merriman's Hydraulics; Bovey's Hydraulics; Robinson's Marine Surveying; Hawkins' Astronomy (Elementary); Chauvenet's Spherical and Practical Astronomy (Advanced); Doolittle's Astronomy; Clarke's Geodesy; Gore's Elements of Geodesy; Merriman's Least Squares; Wright's Adjustment of Observations; Brough's Mine Surveying; Lupton's Mine Surveying.

## 71.—ARCHITECTURE.

**HISTORY OF ARCHITECTURE**, illustrated by photographs and drawings; and **BUILDING CONSTRUCTION**, illustrated by diagrams and drawings, and samples of materials.

**HISTORY OF ARCHITECTURE.**—The historical evolution of design in buildings from the earliest times to the present day, embracing Egyptian, Assyrian, Grecian, Roman, Romanesque, Byzantine, Saracenic, Gothic, Renaissance and Modern work.

**BOOKS RECOMMENDED.**—History of Architecture, by Fergusson (4 vols.)  
A History of Architecture, by Banister Fletcher (1 vol.)

**BUILDING CONSTRUCTION.**—Description of the nature and proper utilisation of building materials, and of the modes of construction adopted in the various building trades.

**BOOKS RECOMMENDED.**—Building Construction, Rivingtons (vols. 1, 2, 3); Building Construction, Elementary Course, by Chas. F. Mitchell; Building Construction, Advanced Course, by Chas. F. Mitchell; Practical Building Construction, by J. P. Allen; Elementary Practical Building Construction, Stage 1, by Frank William Booker.



## 72.—MINING.

1. Valuable mineral deposits. Circulation of water. Fault rules. Forms of deposits. Rich parts of veins. Genesis of mineral veins. Characteristics of different kinds of deposits. Classification of deposits. Chemistry of deposits, solvents, precipitants. Different kinds of valuable mineral deposits, their mode of occurrence. Various minerals, their value and the uses to which they are put.

2. Prospecting, or the search for minerals.

3. Boring, and the appliances used in connection therewith.

4. Laying out mines (shafts, winzes, rises, adits, drives, cross-cuts, stopes, etc.).

5. Breaking ground. Hand tools, rock drills, channeling machines, coal cutters, wire saws, steam shovels, dredges. Explosives and their use in blasting.

6. Supporting excavations by timbering, masonry, or metallic supports. Pneumatic method. Freezing method. Filling.

7. Methods of extracting minerals. Quarrying, ground sluicing, hydraulic sluicing, extraction through bore holes, caving, stoping, longwall, pillar and stall, etc.

8. Haulage. Vehicles. Self-acting incline engine plane. Main and tail ropes. Endless rope. Aërial ropeways. Transport by shoots and pipes.

9. Hoisting. Windlass, whip, whim. Pit-head frame. Ropes, chains and attachments. Safety appliances. Buckets, skips and cages. Keps. Signalling.

10. Travelling. Steps, ladders. Man engines. Buckets. Cages. Trucks.

11. Drainage. Dams, surface and underground. Various means of lifting water.

12. Ventilation. Gases met with in mines. Natural ventilation. Artificial ventilation. Measuring and testing air.

13. Illumination of mines. Candles oil lamps, electric lights.

14. Accidents. Common causes of accidents.

15. Mine management. Books to be kept. Employment of labour. Assay plans. Mine stores. Reports.

16. Mine examination. Points to be considered. Sampling mines. Valuation of mines. Financial problems.

17. Legislation affecting mining.

18. Ore dressing. General. Desiccation. Reduction. Separation. Sizing. Classification. Concentration. Conveyers. Special methods. Trees. Weighing. Sampling. Disposal of products.

*Text Books.*—A Treatise on Ore Deposits (J. A. Phillips and H. Louis); Ore and Stone Mining (Dr. C. Le Neve Foster); Colliery Manager's Handbook (C. Pamey); Ore Dressing (R. H. Richards). The following books may also be consulted:—The Mineral Resources of New South Wales (E. F. Pittman); Genesis of Ore Deposits (Posepny, van Hise, Weed and others); Economic Mining (C. G. W. Lock); A Practical Treatise on Hydraulic Mining in California (A. J. Bowie); Mine Timbering (J. Storms); Mine Drainage, Pumps, etc. (H. Behr); A Text Book of Coal Mining (H. W. Hughes); Well Boring for Water Brine and Oil (C. S. Isler); Ore Sampling (T. Rickard and others); Mine Accounts and Mining Bookkeeping (J. G. Lawn).

### 73.—SURGICAL AND MECHANICAL DENTISTRY.

#### (a) SPECIAL DISEASES OF THE TEETH.

Mr. R. Fairfax Reading, M.R.C.S., &c.

1. Surgical Anatomy of the Teeth, Temporary and Permanent.
2. Extraction—Instruments to be used.
3. Accidents during and after extraction. Hæmorrhage. Position when under anæsthetics and special instruments required.
4. Condition of Teeth and Jaws at Birth.
5. Temporary Dentition and its Complications.
6. Permanent Dentition—Dates of eruption. General characters. Modifications.
7. Abnormalities—Syphilitic. Stomatitic. Supernumerary. Geminated. Dilacerated.
8. Caries—Etiology. Terminations. Complications. Sequelæ. Treatment, preventive and curative.
9. Diseases of the Pulp—Hyperæmia. Acute and Chronic Inflammation. Exposure. Gangrene. Polypus. Calcification.
10. Abscess—Varieties. Sequelæ.
11. Diseases of the Pericementum—Acute and Chronic Septic pericementitis. Non-septic pericementitis. Salivary Calculus.

12. Pyorrhœa Alveolaris.
13. Tumours—Dental Cyst. Odontome. Epulis.
14. Reflex Disorders of Dental Origin.
15. Injuries—Fracture of Alveolus. Dislocation. Accidental Extraction. Infection of Wound. Fractured Teeth.
16. Replantation. Transplantation. Implantation.
17. Fracture of Jaw—Treatment of loose fragments and broken teeth. Splints. Operative treatment.
18. General Hygiene of the Mouth and Teeth in relation to Health.
19. Root canals, treatment and filling.
20. Cleft palate, deformities and restorative appliances.

(b) CLINICAL DENTAL SURGERY.

Mr. N. V. Pockley, D.D.S.

1. The Teeth—Definition, nomenclature, structure, form, surfaces, arrangement.
2. Sterilisation—Mouth, hands, instruments, &c.
3. Examination of the Teeth—Appliances, methods, removal of deposits, separating, records, &c.
4. Stages of Caries—Superficial, moderate, deep.
5. Exclusion of Moisture—Appliances, methods.
6. Preparation of Cavities—Opening, removing decay, shaping, sterilising.
7. Classification of Cavities—(a) Simple cavities on exposed surfaces, (b) Simple approximal cavities, (c) Compound cavities.
8. Filling Materials—Gold, tin, amalgam, cement, gutta percha.
9. Cavity Linings—Indications for, materials.
10. Filling Cavities with gold and tin.
11. Filling Cavities with plastic materials.
12. Combination fillings.
13. Matrices—Forms, uses, dangers.
14. Porcelain inlays.

15. Bleaching of discoloured teeth.
16. Care and treatment of deciduous teeth.

#### ORTHODONTIA.

Etiology. Classification of cases. Movements to be produced. Materials, appliances and methods. Simple cases and methods of correction. Complicated cases and methods of correction.

#### (c) CROWN AND BRIDGE WORK.

Mr. W. Septimus Hinder, D.D.S.

##### For Second Year Students.

1. History, definition and application.
2. Materials and instruments required.
3. Selection of cases for crown work.
4. Treatment and preparation of roots for reception of the various forms of pivot crown.
5. Construction and mounting of porcelain and facing crowns.
6. Preparation of teeth for the adjustment of hollow metal crowns.
7. The hollow metal crown.
8. Porcelain faced hollow metal crown.
9. Seamless crowns.
10. Principles involved in the selection of cases for bridge work.
11. Construction and fitting of the various forms of fixed bridges.
12. Application to special cases.
13. Removable bridges.
14. Material and various methods employed in setting crown and bridge work.
15. Porcelain as applied to crown and bridge work.
16. General principles.
17. The various kinds of porcelain bodies, their composition and fusing points.
18. Manipulation of the body.
19. The construction of porcelain crowns.

(d) MECHANICAL DENTISTRY.

1. Preparation of the mouth.
2. Impressions and their treatment.
3. Models—Preparation for metal and vulcanite.
4. Moulding—Dies and counter-dies.
5. Swaging of the various forms of metal plates.
6. Attachment—Clasps, air chambers, etc.
7. Combination dentures.
8. The selection of teeth.
9. Articulation.
10. Vulcanisable rubber—Description and application.
11. Vulcanising and finishing.
12. Treatment of various abnormalities.

*Text Books Recommended.*—Essig's and Kirk's American Text Books; Tomes; Richardson's Mechanical Dentistry; Kingsley's Oral Deformities; Evans' Crown and Bridge Work; Guilford's Orthodontia; Farrar's Irregularities; Dental Metallurgy, E. A. Smith (Churchill & Co.); Angle's Malocclusion of the Teeth; Goslee's Principles and Practice of Crowning Teeth; Smale and Colyer, Diseases and Injuries of the Teeth.

PRACTICAL REQUIREMENTS.

FIRST YEAR.

Section Cutting and Printing.

Drawing and Modelling.

Partial Upper Vulcanite Plate without Teeth, and  
Repair of a Similar Case.

SECOND YEAR.

Preparation of 20 Cavities in Extracted Teeth and filling of 10  
of same with non-cohesive tinfoil and 5 with G.P.

Partial Upper Vulcanite Plate with Teeth attached.

Partial Upper and Partial Lower Metal Plates without Teeth.

THIRD YEAR.

The Preparation and Insertion of at least 5 Porcelain Inlays in  
Teeth out of the Mouth.

Magill Bands with various attachments (tubes, spurs, etc.)

Jack Screws, Springs (piano wire and German Silver).

Swaged Caps for ant. and post. Teeth.

Inclined Planes. Coffin Split Plate.

Vulcanite Work—Full upper gum-section case.

Preparation of roots for and construction of

3 Hollow Metal Crowns.

2 Richmond Incisor Crowns.

1 Half Band Incisor Crown.

2 Porcelain Faced Bicuspids Crowns.

1 All Porcelain Bicuspids Crown, using full band porcelain facing.

FOURTH YEAR.

1 Bridge with two or more Teeth suspended.

1 Splint for Fractured Jaw.

1 Cleft Palate Case complete.

Passing of Examination for Certificate of Efficiency in Extraction.

Metal Work—Partial lower with four or more tube teeth and at least two soldered.

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## FACULTY OF LAW.

The following Regulations have been passed by the Senate :—

1. A Class Examination shall be held at the end of each term by each member of the Teaching Staff in the subject matter of his lectures for the Term, and a report of the results of each examination shall be forwarded to the Registrar to be laid before the Faculty.

2. Every candidate for the degree of LL.B. shall be required to produce certificates from the Lecturer in Procedure and the Lecturer in Equity that he has during his law course attended in court and taken a satisfactory note of such cases as shall be approved of by the said lecturers.

## LECTURE AND EXAMINATION SUBJECTS FOR THE DEGREE OF LL.B.

## 74.—JURISPRUDENCE, LEGAL HISTORY, AND THE ELEMENTS OF POLITICAL SCIENCE.

This subject will include :—(1) An examination into the nature and relation of certain fundamental legal conceptions, together with a sketch of their historical development; (2) The outlines of English legal history; and (3) The elements of political science.

Students are recommended to read—Holland, "Elements of Jurisprudence"; Austin, "Jurisprudence" (Student's edition), Introduction and Part I., ch. 1, 5, 6, and 11; Maine, "Ancient Law"; Carter, "History of English Legal Institutions"; and Sidgwick, "Elements of Politics." Reference may also be made to the following works, and especially to such parts thereof as may be indicated in the lectures :—Austin, "Jurisprudence" (Student's edition), Parts II. and III.; Pollock, "First Book of Jurisprudence"; Maine, "Early Institutions," "Early Law and Custom," and "Village Communities"; Jenks, "Law and Politics in Middle Ages"; Bryce, "Studies in History and Jurisprudence"; Bentham, "Theory of Legislation" (by Dumont); Farrer, "The State in relation to Trade"; and Jevons, "The State in relation to Labour."

## 75.—ROMAN LAW.

This subject will include :—(1) The history of the sources of Roman Law, together with an account of the administrative and

judicial organisation of the Empire under Constantine, and a sketch of the subsequent history and influence of Roman Law; (2) The text of the Institutes of Justinian (omitting iii. 1 to 12, and iv. 6 to end); and (3) The general principles of Roman Law, so far as these are treated of in the Institutes of Justinian.

Students are recommended to read—Hunter, "Introduction to Roman Law" (and thereafter); Moyle, "The Institutes of Justinian" (and commentary). Reference may also be made to Hunter, "Roman Law in the order of a Code," and Sohm, "The Institutes of Roman Law" (translated by J. C. Ledley).

#### 76.—CONSTITUTIONAL LAW.

This subject will include:—(1) An account of the general features of the British Constitution, and especially of those which are essential to a proper understanding of the imperial factors in Australian government; (2) A more particular account of the constitution and government of the Commonwealth; and (3) An account of the history and of the present institutions of the government of the State of New South Wales.

Students are recommended to read the following text-books and statutes:—Dicey, "Introduction to the study of the Law of the Constitution"; Anson "The Law and Custom of the Constitution" (Vol. II., ch. 1, 2, 3, 4, 5, 6, 8 and 10, except S. 4); Thomas "Leading Cases in Constitutional Law"; Webb, "Imperial Law" (ch. 3); Jenks, "History of the Australian Colonies," The Commonwealth of Australia Constitution Act, 1900, together with other Acts and Instruments relating to the Government of the Commonwealth; The Constitution Statute (18 and 19 Vict. c. 54) and "The Constitution Act, 1902"; together with other Acts and Instruments relating to the Government of New South Wales. Reference should also be made to the following works:—Anson, "Law and Custom of the Constitution" (Vol. I.); Quick and Garran, "Commentaries on the Commonwealth of Australia Constitution Act"; Moore, "The Constitution of the Commonwealth of Australia"; and especially to such statutes and cases as may be indicated in the lectures.

#### 77.—INTERNATIONAL LAW, PUBLIC AND PRIVATE.

This subject will include:—(1) An account of the nature, history and sources of Public International Law; (2) An account of the rules generally accepted as determining the conduct of States both in their normal relations, in the relation of war, and in the relation of neutrality; and (3) An account of the general principles of Private International Law or the Conflict of Laws.

Students are recommended to read:—Hall, "Treatise on International Law"; Cobbett, "Leading Cases and Opinions on International Law"; and Foote, "Private International Law." Reference should also be made



to the following works:—Lawrence, "Principles of International Law," and Dicey, "Digest of the Law of England with reference to the Conflict of Laws"; and especially to such statutes and cases as may be indicated in the lectures.

**78.—THE LAW (in force in New South Wales) RELATING TO CONTRACTS, MERCANTILE LAW, TORTS, CRIMES AND DOMESTIC RELATIONS.**

The lectures on this subject will comprise:—An account of the law in force in New South Wales with respect to (1) Contracts generally; (2) Mercantile Law (including Negotiable Instruments, Partnership, Insurance, Carriage and Mercantile Agency); (3) Torts, and obligations arising from civil wrongs at common law; (4) Crimes, including offences punishable summarily; and (5) Domestic Relations and Lunacy.

Text-books and Statutes:—Anson, "The Law of Contract"; Stevens' "Elements of Mercantile Law," Part II., together with the cases of *Lickbarrow v. Mason* and *Miller v. Race* (with notes), from Smith, "Leading Cases at Common Law"; Pollock, "The Law of Torts"; Kenny, "Outlines of Criminal Law"; Kenny, "Selection of Cases illustrative of Criminal Law"; Stephen, "Commentaries," Book III.; together with the following statutes (with commentaries where indicated)—The Claims against the Government, etc., Act, 1897; The Employers Liability Act, 1897; The Defamation Act, 1901; and the Crimes Act, 1900 (Hamilton and Addison). Reference should also be made to other statutes (see appended list) and decisions relating to these subjects, and especially to such statutes and decisions as may be indicated in the lectures.

**79.—THE LAW OF PROPERTY AND PRINCIPLES OF CONVEYANCING (as in force in New South Wales).**

The lectures on this subject will comprise:—(1) An introductory course dealing with the general principles of the Law of Property, as regards the nature, creation, transfer and devolution of estates and interests that may be held in real and personal property in New South Wales; and (2) A more advanced course on the system of Conveyancing in vogue in New South Wales, with respect both to interests in land (whether held under a Common Law Title or under the Real Property Act) and interests in personalty.

Text-books and Statutes:—Williams, "Principles of the Law of Real Property," omitting Part III.; Williams, "Principles of the Law of Personal Property," omitting Part II., ch. 4 and 6 (Students are advised to study these text-books in conjunction with Millard, "Appendix to Real Property," and Millard, "Personal Property"); Jenks, "Modern Land Law"; Hogg, "Hints on the Law and Practice of Conveyancing in New South Wales"; together with the following statutes (with commentaries where indicated)—

The Conveyancing and Law of Property Act, 1898; The Conveyancing and Law of Property (Supplemental) Act, 1901; The Wills, Probate and Administration Act, 1898; The Landlord and Tenant Act, 1899; The Forfeiture of Leases Act, 1901; The Registration of Deeds Act, 1897; The Real Property Act, 1900 (Canaway); The Married Women's Property Act, 1901; The Inheritance Act, 1901; and the Limitations of Actions Act 3 and 4, Will. IV., c. 27 (adopted by 8 Will. IV., No. 3); The Dedication by User Limitation Act, 1902; The Ancient Lights Declaratory Act, 1904; The Bills of Sale Act, 1898; The Bills of Sale (Amendment) Act, 1903; The Lien on Crops and Wool and Stock Mortgages Act, 1898; The Trade Marks Act, 1900; The Patents Act, 1899; The Patents Act, 1903 (Federal); and the Copyright Act, 1879. Reference should also be made to Prideaux, "Dissertations on the Law and Practice of Conveyancing," and to other statutes (see appended list) and decisions relating to these subjects, and especially to such statutes and decisions as may be indicated in the lectures.

**80.—PROCEDURE IN CIVIL AND CRIMINAL CASES** (both before the Supreme Court in its Common Law Jurisdiction, and also before Courts of Inferior Jurisdiction), together with **THE LAW OF EVIDENCE AND PLEADING AND THE CARDINAL RULES OF LEGAL INTERPRETATION** (as in force in New South Wales).

The lectures on this subject will comprise:—An account of (1) The system of procedure in vogue in Civil and Criminal Cases at Common Law both before the Supreme Court and Courts of inferior jurisdiction; (2) The principles of the Law of Evidence; (3) The principles of Pleading; and (4) The more important rules relating to Legal Interpretation.

Text-books and Statutes:—Smith, "Action at Law"; Powell, "Principles and Practice of the Law of Evidence"; Stephen, "The Principles of Pleading in Civil Actions"; Beal, "Cardinal Rules of Legal Interpretation"; the Duchess of Kingston's Case, with notes, from Smith's "Leading Cases"; together with the following statutes (with commentaries where indicated)—The Interpretation Act of 1897; The Acts Interpretation Act, 1901 (Federal); The Claims against the Government Act, 1897; The Evidence Act, 1898; The Small Debts Recovery Act, 1899; The Common Law Procedure Act, 1899 (Rolin and Innes); The Attachment of Wages Limitation Act, 1900; The Witnesses Examination Act, 1900; The Crimes Act, 1900, Parts XI., XII., XIII., XIV. (caps. 1 and 4), XV. and XVI. (Hamilton and Addison); The Supreme Court Procedure Act, 1900; The Supreme Court and Circuit Courts Act, 1900; The District Courts Act, 1901 (Foster and Bonthorne); The Judgment Creditors Remedies Act, 1901; The Interstate Debts Recovery Act, 1901; The Jury Act, 1901, Parts VII., IX., X., XI., XII. and XIII.; The Interpleader Act, 1901; The Prohibition and Mandamus Act, 1901; The Arrest on Mesne Process Act, 1902; The Justices Act, 1902 (Wilkinson, Australian Magistrate); The General Legal Procedure Act, 1902; The Commercial Causes Act, 1903; The State Laws and Records Recognition Act, 1901 (Federal); The Service and Execution of Process Act, 1901 (Federal); The Judiciary Act, 1903 (Federal); and The High Court Procedure Act,

1908 (Federal). Reference should also be made to other statutes (see appended list) and decisions relating to these subjects, and especially to such statutes and decisions as may be indicated in the lectures.

**81.—EQUITY AND COMPANY LAW; THE LAW RELATING TO BANKRUPTCY, PROBATE AND DIVORCE (as in force in New South Wales); TOGETHER WITH PROCEDURE IN THOSE JURISDICTIONS.**

The lectures on these subjects will comprise:—(1) An account of the general principles of Equity and Company Law, together with Equity Practice; and (2) A series of shorter courses on each of the following—(a) the Law and Practice in Bankruptcy, (b) the Law and Practice in Probate, and (c) the Law and Practice in Divorce.

Text-books and Statutes:—"Principles of Equity" (Snell), together with the cases of *Russel v. Russel*, *Bassett v. Nosworthy* and *Penn v. Baltimore*, with notes, from *White and Tudor's Leading Cases in Equity*; Williams, "Personal Property," Part II., ch. 4 (Bankruptcy), and ch. 6 (Companies) (a short summary of the local law on these two subjects will be found in Millard, "Personal Property," pp. 127-166 and 192-218); Walker and Elgood, "Executors and Administrators"; Dixon, "Law of Divorce" (omitting parts relating to practice); together with the following statutes (with commentaries where indicated)—The Equity Act, 1901 (Rich, Newham and Harvey); The Companies Act, 1899 (in default of a more recent commentary students are advised to refer to the notes contained in Rolin and Rich on the corresponding provisions of the Acts of 1874 and 1888, and the No Liability Mining Companies Act, 1896); The Bankruptcy Act, 1898 (Salisbury); The Wills Probate and Administration Act, 1898, Part II. (Walker and Bignold); The Matrimonial Causes Act, 1899 (Whitfield); The Trustee Act, 1898; The Trustee Act Amendment Act, 1902; and The Partnership Act, 1892. Reference should also be made to other statutes (see appended list) and decisions relating to these subjects, and especially to such statutes and decisions as may be indicated in the lectures.

**APPENDED LIST OF STATUTES.**

The Conveyancing and Law of Property Act, 1898; The Conveyancing and Law of Property Act, 1901; The Infants' Custody and Settlements Act, 1899; The Children's Protection Act, 1902; The Landlord and Tenant Act, 1899; The Partition Act, 1900; The Registration of Deeds Act, 1897; The Wills Probate and Administration Act, 1898; The Real Property Act, 1900; The Real Property and Conveyancing (Amendment) Act, 1901; The Bills of Sale Act, 1898; The Bills of Sale (Amendment) Act, 1903; The Liens on Crops and Wool and Stock Mortgages Act, 1898; The Limitations of Actions Act, 3 and 4 Will. IV. (adopted by 8 Will. IV., No. 3), and 5 Vict., No. 9, s. 39, 40 and 41 (or Acts consolidating or superseding the same); The Married Women's Property Act, 1901; The Trade Marks Act, 1900; The Patents Act, 1899; The Patents Act, 1903 (Federal); The Copyright Act, 1879; The Inheritance Act, 1901; The Equity Act, 1901; The Trustee Act, 1898; The Companies Act, 1899; The Companies Act Amendment Act, 1900;

The Partnership Act, 1892; The Claims against the Government and Crown Suits Act, 1897; The Claims against the Government and Crown Suits Amendment Act, 1904; The Employers Liability Act, 1897; The Factors Act, 1899; The Compensation to Relatives Act, 1897; The Bills of Exchange Act, 1887 (to be consolidated); The Negotiable Instruments Procedure Act, 1901; The Forfeiture of Leases Act, 1901; The Common Carriers Act, 1902; The Defamation Act, 1901; The Life, Fire and Marine Insurance Act, 1902; The Innkeepers Liability Act, 1902; The Crimes Act, 1900; The Witnesses Examination Act, 1900; The Supreme Court and Circuit Act, 1900; The Supreme Court Procedure Act, 1900; The Judgment Creditors Remedies Act, 1901; The Interpretation Act, 1897; The Acts Interpretation Act, 1901 (Federal); The Bankruptcy Act, 1898; The Matrimonial Causes Act, 1899; The Justices Act, 1902; The Contractors Debts Act, 1897; The Coroners Act, 1898; Masters and Servants Act, 1902; The Deserted Wives and Children Act, 1901; The Infant Protection Act, 1904; The Police Offences Act, 1901, Parts I. and II.; Service and Execution of Process Act, 1901 (Federal); The Marriage Act, 1899; The Legitimation Act, 1902; The Pawnbrokers Act, 1902; The Games, Wagers and Betting Houses Act, 1901; The Usury, Bills of Lading and Written Memoranda Act, 1902; The Arbitration Act, 1902; The Lunacy Act of 1898.

#### ADMISSION OF BARRISTERS.

Certain privileges are conceded to Graduates and Third Year Students of the University in respect to the conditions necessary for admission to the Bar. As to these, candidates are advised either to refer to the Rules for the admission of Barristers (see Law Almanac), or to apply for information to the Secretary of the Barristers' Admission Board, Supreme Court.

#### ADMISSION OF ATTORNEYS.

The following are extracts from the Rules of the Supreme Court for the admission of Attorneys, which refer to Examinations held at the University:—

The degree of Bachelor of Laws of the University of Sydney obtained by an Articled Clerk who has attended the law lectures appointed by the said University shall exempt him from passing the Intermediate Law Examination and sections 1, 2 and 3 of the Final Examination: Provided, however, that he shall be required to pass section 4 of the Final Examination, and to give all notices and pay all fees as required by the existing Rules in the case of an Articled Clerk proceeding to Final Examination.

Every person desirous of entering into Articles of Clerkship who shall not have taken a Degree in the University of Sydney, or in some other University recognised by it, shall, before approval of such Articles, produce to the Prothonotary a Certificate of his having passed a Matriculation Examination in the said University, or in some other University recognised by it; or a Certificate from the Registrar of the University of Sydney of his having passed some equivalent examination before Professors or Examiners appointed by the Senate thereof; or a Certificate of his having passed in England, Scotland or Ireland the Preliminary Examination which Articled Clerks may be there required to pass, and shall lodge with the said Prothonotary a copy of such Certificate.

Preliminary Examinations (equivalent to the Matriculation Examination) for Articled Clerks are held at the University in the months of April and November, commencing on the first Monday in April, and the second Monday in November. Fee, £5 10s. 6d., to be paid to the Prothonotary of the Supreme Court.

The subjects of the Examinations to be held in November, 1904, and April, 1905, will be the same as those prescribed for the Matriculation Examination of March, 1905, and so on in future years. (See page 76.)

### EXAMINATION SUBJECTS FOR THE DEGREE OF LL.D.

The Examination for the Degree of Doctor of Laws will include the following subjects:—

#### I.—LEGAL HISTORY.

Candidates will be examined both in general and more especially in English legal history. In addition to the text-books and books of reference prescribed for corresponding parts of the LL.B. Examination, candidates are recommended to read or refer to Pollock and Maitland, "History of English Law"; Holmes, "The Common Law"; Lee, "Historical Jurisprudence"; and Stephen, "History of the Criminal Law of England."

#### II.—ROMAN LAW.

The Examination in this subject will have reference to a special subject from the *Digest*, to be selected from time to time, and to be studied in connection with the corresponding branch of English Law. Until further notice the special subject will be "The Roman Law of Sale," as set forth in the following Titles of the *Digest*: XVIII., 1, 5, 6, and XIX., 1. These portions of the *Digest* should be studied in connection with Moyle's treatise, "The Contract of Sale in the Civil Law."

#### III.—ENGLISH LAW (AS IN FORCE IN NEW SOUTH WALES).

One of the following special subjects:—

- (1.) The Common Law (including Mercantile Law, Criminal Law, and the Law of Evidence and Procedure).

Candidates, in addition to the books and statutes prescribed for the corresponding portions of the LL.B. Examination, are recommended to make a special study of the leading cases, and especially of those contained in Smith, "Leading Cases," and Tudor, "Leading Cases on Mercantile Law and Maritime Law."

- (2.) Equity (including Bankruptcy, Probate, Company Law, and Procedure).

Candidates, in addition to the books and statutes prescribed for the corresponding portions of the LL.B. Examination, are recommended to make a special study of the leading cases, and especially those contained in White and Tudor, "Leading Cases in Equity."

(3.) The Law of Property and Conveyancing.

In addition to the books and statutes prescribed for the corresponding portion of LL.B. Examination, candidates are recommended to make a special study of the leading cases, and especially of those contained in Tudor, "Leading Cases on Real Property and Conveyancing, &c." Candidates will also be expected to show a competent knowledge of the practice of conveyancing.

(4.) Constitutional Law.

In addition to the books and statutes, &c., prescribed for the corresponding portion of the LL.B. Examination, candidates are recommended to read or refer to the following works:—Quick and Garran, "Commentaries on the Commonwealth of Australian Constitution Act"; Clark, "Australian Constitutional Law"; Moore, "The Constitution of the Commonwealth of Australia"; Todd, "Parliamentary Government of the British Colonies"; Forsyth, "Cases and Opinions in Constitutional Law"; and Ilbert, "Legislative Methods and Forms."

IV.—INTERNATIONAL LAW (PUBLIC AND PRIVATE).

In addition to the books prescribed for the corresponding portion of the LL.B. Examination, candidates are recommended to read Westlake, "Private International Law"; and Dicey, "Conflict of Laws."

NOTICE.—Candidates are at liberty, on giving six months' prior notice, and with the approval of the Dean of the Faculty, to offer other books in lieu of those recommended. Candidates are also advised that a thorough knowledge and apt treatment of a fair proportion only of the subjects touched on in any paper will be regarded as sufficient evidence of proficiency, as regards that particular branch of the Examination.



# EXAMINATION SUBJECTS.

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## FACULTY OF ARTS.

### EXAMINATION FOR THE DEGREE OF B.A.

(See By-laws, Chap. XV.)

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### EXAMINATION FOR THE DEGREE OF M.A.

(See By-laws, Chap. XV., Sec. 24.\*)

#### SCHOOL OF CLASSICAL PHILOLOGY AND ANCIENT HISTORY.

Candidates may offer themselves for examination in one or more of the following subjects:—

1. The History of Greece, to the death of Demosthenes. In addition to a general knowledge of the subject, special knowledge of one of the following periods will be required:—
  - (a) Down to 404 B.C., with Herodotus, Thucydides, and Xenophon (Hellenics I., II.).
  - (b) From 431 B.C. to the death of Demosthenes, with Thucydides, Xenophon (Hellenics) and Demosthenes (Phil. I., Olynth. I.-III., De Pace, Phil. II., De Chers., Phil. III., De Corona).
2. The History of Rome, to the death of Marcus Aurelius. Special knowledge of Cicero's Letters and Tacitus' *Annals* will be required.
3. Greek Literature, to the death of Demosthenes. In addition to a general knowledge of the whole subject, special knowledge of one of the following groups will be required:—
  - (a) Epic: Homer, *Iliad or Odyssey*.
  - (b) Lyric: Fragments as in Smyth's Greek Melic Poets.

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\* Candidates may be admitted to *Examination* for the Degree of M.A. one year after obtaining the Degree of B.A. The Degree of M.A. cannot be conferred until the time has elapsed which is required by the By-laws.

- (c) Drama: Any six Plays of Æschylus, Sophocles, Euripides, and Aristophanes (all four authors must be represented in the candidate's selection).
- (d) Rhetorical: Specimens of the Attic Orators, such as those given by Jebb; together with Æschines, Against Ctesiphon; Demosthenes, On the Crown; Isocrates, Panegyricus.

Candidates taking this subject are also recommended to read Longinus, *On the Sublime* (Rhys Roberts). They will be required to show a general knowledge of, and to translate passages from, Greek authors other than those specified.

4. Roman Literature, to the death of Tacitus. Special knowledge will be required of Virgil and Horace; and candidates will be required to show a general knowledge of, and to translate passages from, other Latin authors.
5. Greek Constitutional History. In addition to a general knowledge of the subject, to be gained from such a book as Greenidge's *Handbook to Greek Const. Hist.*, special knowledge will be required of Plato, *Republic*, Books VIII.-IX.; Aristotle, *Politics*, and *Athenaion Politeia*; Xenophon, *Respubl. Laced.* and *Respubl. Ath.* Reference also should be made to Freeman's *History of Federal Government in Greece and Italy*.
6. Comparative Philology, with special application to the Greek and Latin languages. Books especially recommended: King and Cookson's *Sounds and Inflections in Greek and Latin*; Monro's *Homeric Grammar*; Wordsworth's *Specimens of Early Latin*; Lindsay's *The Latin Language*; Giles' *Manual of Comparative Philology*.

Candidates for Honours are required to offer not less than two of these subjects.

The Greek and Latin books especially prescribed must be read in the original language. Books which have in whole or in part been included in the candidate's course for the B.A. Degree may be offered only subject to the approval of the Professor; but other books may, subject to the approval of the Professor, be substituted for those here specified.

#### SCHOOL OF LOGIC, MENTAL, MORAL AND POLITICAL PHILOSOPHY.

Candidates may offer themselves for examination in one or more of the following subjects:—



- |                |                 |               |
|----------------|-----------------|---------------|
| 1. Logic.      | 3. Ethics.      | 6. Economics. |
| 2. Psychology. | 4. Metaphysics. | 7. Politics.  |
|                | 5. Education.   |               |

Candidates for Honours are required to offer not less than two of these subjects. All candidates will be required to submit themselves to examination—

- (a) On the general history and literature of the subject or subjects chosen.
- (b) On a special branch of, or period in the history of, the subject or subjects chosen. The branch or period to be chosen by the candidate, subject to the approval of the Professor of Logic and Mental Philosophy.

In addition, all candidates will be required to present a thesis on some subject connected with the branch of study selected. The choice of the subject must be approved by the Professor. The thesis must give evidence of critical and constructive philosophical ability on the part of the author.

Candidates who have not attended the philosophical classes during their Undergraduate course, will be required to take a preliminary paper in Logic, Psychology and Ethics.

No books are prescribed, and considerable freedom will be allowed in the choice of subjects, but candidates are recommended to consult the Professor of Logic and Mental Philosophy when arranging their courses of study.

#### SCHOOL OF MATHEMATICS AND NATURAL PHILOSOPHY.

ORDINARY DEGREE.—Candidates will be examined in the following subjects:—

Analytical Geometry of Two and Three Dimensions.

The Application of the Calculus to the Theory of Plane Curves.

Statics and Dynamics, including the simpler parts of the Theory of Attraction and Rigid Dynamics.

The Elementary Mathematical Theory of *one* of the subjects prescribed for the course in Mathematical Physics of the Third Year in Arts.

HONOURS DEGREE.—Candidates may offer themselves for examination in any Mathematical subjects distinctly in advance of those prescribed for the B.A. Course, the subjects to be chosen from both the Departments of Pure and Applied Mathematics, and to be approved by the Professor of Mathematics.

The examiners will be at liberty to declare that candidates, though they may not have deserved Honours, have acquitted themselves so as to deserve the ordinary Degree, and such candidates shall be held to have passed the examination for that degree.

#### SCHOOL OF MODERN LITERATURE.

Candidates may offer themselves for examination in one or more of the following subjects:—

1. English Philology, English Literature before Chaucer. Special knowledge of *Beowulf*, the *Chronicle*, and *Sir Gawayne and the Grene Knight* will be required.
2. English Literature from Chaucer to the present day. Special knowledge will be required of three of the following authors:—Chaucer, Shakespeare, Burke, Tennyson.
3. German Philology. German Literature before Klopstock. Special knowledge of the *Nibelungen Lied*, *Walter von der Vogelweide*, *Hans Sachs* (*Dichtungen*, Goedeke and Tittman).
4. German Language and Literature from Klopstock to the present day. Special knowledge will be required of Goethe's Novels and Dramas, of Schiller's Plays and Poems, and of Lessing's chief Dramas and Prose Works.
5. French Philology. French Literature till 1600. Special knowledge will be required of the *Chanson de Roland*, of the Romances and Pastorals (*Romanzen* and *Pastorellen*, ed. *Bartsch*), and of Montaigne.
6. French Language and Literature from 1600 to the present day. Special knowledge will be required of Molière, of Voltaire's Historical Works and *La Henriade*, of Sainte-Beuve's *Port Royal*, and Hugo's Dramas.

Subject to the approval of the Professor of Modern Literature, candidates may offer other books and authors of similar nature and extent in place of those specified.

In all these subjects there may be *viva voce* examination in addition to the examination in writing.

Candidates who have graduated after March, 1894, will be required to present an essay on some subject connected with the period, and written in the language they have selected. The choice of the subject will be left to themselves, but must be approved by the Professor.

Candidates for Honours are required to offer (a) not less than two of the preceding subjects, or (b) one of the six subjects mentioned, along with one of the subjects prescribed for Classics, Philosophy or History. In the latter case the approval of both Professors concerned must be obtained.

#### SCHOOL OF HISTORY.

Candidates are required:—

(A) To write an essay on some subject approved by the Professor of History. The essay must be sent to the Registrar on or before the 15th of February.

(B) To offer themselves for examination in one or more of the following subjects:—

(1) The Renaissance and the Reformation, 1453 to 1535.

BOOKS RECOMMENDED.—*Machiavelli's Prince*; *Erasmus' Praise of Folly*; *Cellini's Autobiography*; *Luther's Primary Works* (ed. Wace & Buchheim); *Symonds' Renaissance in Italy*; *Creighton's Papacy*; *Lilly's Renaissance Types*; *Beard's Hibbert Lectures*; *Beard's Luther*; *Villari's Savonarola*; *Froude's Erasmus*; *Bridgett's More*; *Gairdner's English Church in the 16th Century*; *Pastor's Papacy*; *Ranke's Popes*.

Or,

The History of Protestantism in England from Wycliffe to Milton. Candidates will be expected to show knowledge of Continental Protestantism in so far as it has influence on the development of Protestant thought and practice in England.

BOOKS RECOMMENDED.—Special knowledge will be required of the following: *Wycliffe's Select English Works*, Vol. 3, pp. 211-496 (ed. T. Arnold); *Luther's Primary Works* (ed. Wace and Buchheim); *Calvin's Institutes*; *Hooker's Ecclesiastical Polity*—Preface; *Milton's Treatises on Church Government and Christian Doctrine*.

The following books are also recommended for study:—*Lechler's Wycliffe*; *Trevelyan's England in the time of Wycliffe*; *Beard's Hibbert Lectures*; *Beard's Luther*; *The Zurich Letters*; *Masson's Life and Times of Milton*; *Gairdner's English Church in the 16th Century*; *Wakeman's History of the Church of England*.

## (2) The History of England from 1637 to 1660.

Special knowledge will be required of the following :—Clarendon, Books I. to VIII. ; *Cromwell's* Letters and Speeches (ed. Carlyle) ; *Ludlow's* Memoirs ; *Hutchinson's* Memoirs ; *Milton's* Political and Ecclesiastical Pamphlets ; *Gardiner's* Constitutional Documents.

The following books are also recommended :—*Gardiner's* History of England from 1603 to 1642 ; *Gardiner's* Great Civil War, and Commonwealth and Protectorate ; *Masson's* Life and Times of Milton ; *Morley's* Cromwell ; *Firth's* Cromwell ; *Firth's* Cromwell's Army ; *Firth* on " Clarendon's History of the Rebellion " in *English History Review* for 1904.

## (3) The History of England from 1756 to 1797.

Special knowledge will be required of the following :—The Political Works of Burke ; *Adam Smith's* Wealth of Nations, Book IV.

The following books are also recommended :—*Lecky's* History of England ; *Trevelyan's* C. J. Fox ; *Trevelyan's* American Revolution ; *Morley's* Burke.

## (4) The Growth of British Industry and Commerce from 1776 to the present time. Knowledge will also be required of the development of economic theory during the period.

Special knowledge will be required of the following :—*A. Smith's* Wealth of Nations ; *J. S. Mill's* Political Economy ; *Cobden's* Speeches on Free-trade ; *Carlyle's* Past and Present.

The following books are also recommended :—Some recent handbook on Political Economy, as e.g., *Marshall*, *Nicholson*, or *Walker*. Some account of the development of economic thought in England, as e.g., *Ingram* or *Price*. *Ruskin's* Unto the Last ; *Toynbee's* Industrial Revolution ; *Cunningham's* Growth of English Industry and Commerce in Modern Times ; *Gibbins' Industry in England* ; *Morley's* Cobden ; *Hobson's* Ruskin ; *Hobson's* Problems of Poverty ; *Webb's* Trade Unionism ; *Webb's* Social Democracy.

Subject to the approval of the Professor of History, candidates may offer other subjects of similar nature and extent in place of those specified above.

Candidates who seek Honours are required to offer not less than two subjects.

Candidates may also be required to take papers on English History, and if they seek Honours, on a period of Continental History. Those candidates, however, who have shown adequate knowledge of these subjects in the examinations held in connection with the Degree of B.A. will not be required to take these papers.

## PUBLIC EXAMINATIONS.

Full particulars regarding these examinations can be had on reference to the "Manual of Public Examinations," which contains the By-laws, Subjects of Examination, Books Recommended, Directions for Candidates, Examination Papers, &c., and is obtainable from almost any bookseller.

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## LIST OF \*SCHOLARSHIPS, EXHIBITIONS, PRIZES, &c.

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All students of the University who shall during their course have received Bursaries, Exhibitions, Scholarships or Fellowships, or Exemptions from Fees, are invited by the Senate to make returns to the University when their circumstances in life shall permit, for the purpose of conferring like benefits on future students. The names of all students making such return will be published in the University Calendar.

### AWARDED AT THE MATRICULATION EXAMINATION.

The **SALTING Exhibition**—Awarded on the recommendation of the Trustees of the Sydney Grammar School to a student proceeding thence to the University. £25 for three years. (See page 229.) The last award was made in March, 1903.

The **BOWMAN-CAMERON Scholarship**—Every third year, for General Proficiency. £40 for three years. (See page 221.) The last award was made in March, 1905.

The **COOPER Scholarship No. II.**—Awarded to a student distinguished in Classics. £50 for one year. (See page 219.)

The **BARKER Scholarship No. II.**—Awarded to a student distinguished in Mathematics. £50 for one year. (See page 218.)

The **LITHGOW Scholarship**—Awarded to a student distinguished in modern languages (French and German). £50 for one year. (See page 220.)

The **JAMES AITKEN Scholarship**—For General Proficiency. £50 for one year. This Scholarship is not given in the year in which the Bowman-Cameron Scholarship is awarded. (See page 222.)

The **FREEMASONS Scholarship**—For sons of Freemasons. Every third year. £50 for three years. (See page 221.) The last award was made in March, 1905.

The **HORNER Exhibition**—For proficiency in Mathematics. £8 for one year. (See page 230.)

Three **PETER NICOL RUSSELL Scholarships**—For Mechanical Engineering. £75 for four years. (See page 213.)

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\* Scholars are required to proceed with their studies in the respective Faculties in which their Scholarships are awarded.

**BURSARIES** of the annual value of £50 and £25 each are awarded from time to time. (See page 231.)

**AWARDED AT THE FIRST YEAR EXAMINATIONS.**

The **COOPER** Scholarship No. III.—For Classics. £50 for one year. (See page 220.)

The **GEORGE ALLEN** Scholarship—For Mathematics. £40 for one year. (See page 221.)

The **\*LEVEY** Scholarship—Awarded in the Faculty of Arts or the Faculty of Science for Chemistry (theoretical and practical) and Physics (theoretical and practical). £40 for one year. (See page 217.)

The **GARTON** Scholarship No. I.—For French and German. £30 for one year. (See page 226.)

The **\*SMITH** Prize—For Physics. £5. (See page 239.)

The **SLADE** Prizes—For Practical Chemistry and Practical Physics. £5 each. (See page 239.)

The **COLLIE** Prize—For Botany. £4. (See page 240.)

The **STRUTH** EXHIBITION—For General Proficiency. Awarded at the First Year Examination in Arts to a student entering the Faculty of Medicine. £40 for five years. (See page 229.) The last award was made in March, 1902.

The **HENRY WAIT** Bursary—For General Proficiency. Awarded at the First Year Examination in Arts to a student entering the Faculty of Medicine. £40 for five years. (See page 236.) The last award was made in March, 1901. This Bursary does not exempt the holder from the payment of lecture fees.

**AWARDED AT THE SECOND YEAR EXAMINATIONS.**

The **COOPER** Scholarship No. I.—For Classics. £50 for one year. (See page 219.)

The **BARKER** Scholarship No. I.—For Mathematics. £50 for one year. (See page 218.)

The **GARTON** Scholarship No. II.—For French and German. £30 for one year. (See page 226.)

The **NORBERT QUIRK** Prize—For Mathematics. £5. (See page 239.)

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\* Candidates for Honours and Scholarships in Physics are required to attend the Laboratory during one term, for two afternoons a week.

The **DEAS-THOMSON Physics Scholarship**—Awarded in the Faculty of Arts or that of Science for Physics. £50 for one year. (See page 218.)

The **DEAS-THOMSON Geology Scholarship**—Awarded in the Faculty of Science for Geology. £50 for one year. (See page 219.)

The **CAIRD Scholarship**—Awarded in the Faculty of Science for Chemistry. £50 for one year. (See page 222.)

AWARDED AT EACH DEGREE EXAMINATION.

**BRONZE MEDALS** are awarded to the highest proficient in the various Degree Examinations.

SCHOLARSHIPS TENABLE BY GRADUATES.

The **FRAZER Scholarship**—Awarded upon the results of examinations, &c., in History. £70. (See page 224.)

The **JAMES KING of Irrawang Scholarship**—Awarded to a Graduate of not more than four years' standing. £130 for two years. The last award was made in March, 1904. (See page 223.)

The **WOOLLEY Scholarship**—Awarded to a Graduate in Arts of not more than four years' standing. £150 for two years. The last award was made in March, 1903. (See page 225.)

Her Majesty's Commissioners of the Exhibition of 1851 have on seven occasions awarded Scholarships to Graduates in Science of this University, upon the nomination of the Senate. £150 for two or three years. (See page 224.)

AWARDED IN THE FACULTY OF LAW.

The **WIGRAM ALLEN Scholarship**—Awarded for proficiency in the subjects of Section I. of the Intermediate LL.B. Examination. £50 for one year. (See page 220.)

The **GEORGE and MATILDA HARRIS Scholarship**—Awarded for proficiency in the subjects of Section II. of the Intermediate LL.B. Examination. £50 for one year. (See page 226.)

AWARDED IN THE FACULTY OF MEDICINE.

The **STRUTH Exhibition**—For proficiency in the subjects of the First Year Examination in Arts, to a student entering the Faculty of Medicine. £40 for five years. (See page 229.) The last award was made in March, 1902.



The **HENRY WAIT Bursary**—For proficiency in the subjects of the First Year Examination in Arts to a student entering the Faculty of Medicine. £40 for five years. (See page 236.) The last award was made in March, 1901. This Bursary does not exempt the holder from the payment of lecture fees.

The **RENWICK Scholarship**—For proficiency in the subjects of the First Year Examination in Medicine. £45 for one year. (See page 221.)

The **JOHN HARRIS Scholarship**—For proficiency in the subjects of Anatomy and Physiology in the Third Year Examination in Medicine. £40 for one year. (See page 223.)

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The **BELMORE Medal**. A Gold Medal of the value of £15, awarded annually for proficiency in Geology and Practical Chemistry, with special reference to Agriculture. (See page 238.)

1. Candidates must be of two, and under five years' standing in the University of Sydney.
2. They must pass examinations in Chemistry and Geology, with special reference to Agriculture.

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#### \*PRIZE COMPOSITIONS.

**WENTWORTH Medal for Graduates**—£10. Awarded annually for an English Essay. The competition for this Medal is confined to Bachelors of Arts of not more than three years' standing. (See page 237.)

Subject for 1905-6.—“Does the Spread of Education conduce to Excellence in Literature?”

**WENTWORTH Medal for Undergraduates**—£10. Awarded annually for an English Essay. (See page 237.)

Subject for 1905-6.—“Does the Spread of Education conduce to Excellence in Literature?”

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\* The exercises for these Prizes, which must not be in the handwriting of the author, must be sent to the Registrar before the first day of Lent Term, 1905. They must be contained in an envelope with a motto, and be accompanied by a sealed letter containing the name and motto of the author.

**NICHOLSON Medal—£10.** Awarded annually for Latin Verse (Hexameters). The competition for this Medal is open to all Undergraduates and to Bachelors of Arts of not more than two years' standing. (See page 237.)

Subject for 1905-6.—“Catonis nobile letum.”

**UNIVERSITY Prize—£10.** Awarded annually for English Verse (to be written in rhyme). The competition for this Medal is open to all Undergraduates and to Bachelors of Arts of not more than three years' standing. The composition must be at least one hundred lines in length.

Subject for 1905-6.—“The Destruction of Jerusalem by Titus.”

**Professor ANDERSON'S Medal—£10.** Awarded annually for an Essay on some Philosophical subject. The competition for this Medal is open to all Bachelors of Arts of not more than two years' standing.

Subject for 1905-6.—“The Ethics of Socialism.”

**NOTE.**—By Socialism is meant the modern theory of Collectivism as developed by Karl Marx and his successors.

**The BEAUCHAMP Prize—£25.** Awarded for an Essay upon some subject of literary or historical interest. The competition is open to all Undergraduates and Graduates of not more than twenty-five Terms' standing from Matriculation. (See page 240.)

Subject for 1905-6.—“The problem of Local Government in New South Wales considered historically, and also in the light of the comparative method.”

Candidates are advised to consider the systems of Local Government obtaining in other countries, and especially in the United States of America and Prussia, with a view to ascertaining how far these systems, or any parts of them, are capable of being adapted with advantage to local conditions.

Subject for 1906-7.—“The Referendum in Australia; a Study in Constitutional Law and Practical Politics.”



## TABLE OF FEES.

	£	s.	d.
MATRICULATION EXAMINATION .. .. .	2	0	0
ENTRANCE EXAMINATION FOR LAW, MEDICINE AND SCIENCE .. .. .	2	0	0
LECTURE FEES, <i>per term</i> —			
ANATOMY, DISSECTIONS (including material)..	3	3	0
ANATOMY OF TEETH .. .. .	1	1	0
ANATOMY, GENERAL AND DESCRIPTIVE ..	3	3	0
ANATOMY, REGIONAL AND SURGICAL ..	3	3	0
APPLIED MECHANICS .. .. .	2	2	0
ARCHITECTURE AND BUILDING CONSTRUCTION	2	2	0
ASSAYING ( <i>see Practical Chemistry</i> )			
BACTERIOLOGY, SPECIAL .. .. .	4	4	0
BIOLOGY .. .. .	2	2	0
BIOLOGY, PRACTICAL .. .. .	2	2	0
BOTANY .. .. .	2	2	0
BUILDING CONSTRUCTION ( <i>see Architecture</i> )			
CHEMISTRY, INTRODUCTORY COURSE FOR STUDENTS IN THE FACULTY OF ARTS	2	2	0
CHEMISTRY, ALL OTHER COURSES .. ..	3	3	0
CHEMISTRY, PRACTICAL* .. .. .	5	5	0
CHEMISTRY, TUTORIAL .. .. .	1	1	0
CIVIL ENGINEERING .. .. .	2	2	0
DENTISTRY, MECHANICAL WORKSHOP ..	2	2	0
„ MECHANICAL .. .. .	2	2	0
„ SURGICAL .. .. .	2	2	0
DESCRIPTIVE GEOMETRY AND DRAWING ..	1	11	6
ENGINEERING, PRACTICAL, FIRST YEAR ..	† 1	1	0
„ SECOND YEAR (CIVIL AND MINING AND METALLURGY) ..	† 2	2	0

\* For Students who have passed through the Introductory course the following is the Table of Fees; two half-days being counted as one day—

For 6 days in the week, £5 per month, or £12 per term.

„ 5	„	„	£4 6s.	„	£10	„
„ 4	„	„	£3 6s. 8d.	„	£8	„
„ 3	„	„	£2 10s.	„	£6	„
„ 2	„	„	£2	„	£4	„
„ 1	„	„	£1	„	£2	„

† For Year.

LECTURE FEES <i>per term—continued—</i>					£	s.	d.
ENGINEERING, THIRD YEAR (MECHANICAL AND ELECTRICAL .. .. .)					* 2	2	0
ENGLISH, FIRST YEAR .. .. .					0	10	6
ENGLISH, SECOND AND THIRD YEARS ..					2	2	0
FRENCH .. .. .					2	2	0
GEOLOGY .. .. .					2	2	0
GEOLOGY, PRACTICAL .. .. .					3	3	0
GERMAN .. .. .					2	2	0
GREEK .. .. .					2	2	0
GYNÆCOLOGY .. .. .					3	3	0
HISTORY .. .. .					2	2	0
LATIN .. .. .					2	2	0
LAW†—THIRD YEAR .. .. .					4	4	0
FOURTH AND FIFTH YEARS ..					8	8	0
LOGIC AND MENTAL PHILOSOPHY ..					2	2	0
LOGIC, APPLIED (FOR MEDICAL STUDENTS) ..					1	1	0
MATERIA MEDICA AND THERAPEUTICS ..					3	3	0
MATHEMATICS .. .. .					2	2	0
MECHANICAL DRAWING .. .. .					2	2	0
MECHANICAL ENGINEERING .. .. .					2	2	0
MEDICAL JURISPRUDENCE AND PUBLIC HEALTH					3	3	0
MEDICINE .. .. .					3	3	0
MEDICINE, CLINICAL .. .. .					2	2	0
MEDICINE, TUTORIAL .. .. .					* 1	1	0
METALLURGY .. .. .					2	2	0
METALLURGY, PRACTICAL, FOR DENTISTS ..					3	3	0
MIDWIFERY .. .. .					3	3	0
MINERALOGY .. .. .					2	2	0
MINERALOGY, PRACTICAL .. .. .					2	2	0
MINING .. .. .					2	2	0
OPHTHALMIC MEDICINE AND SURGERY ..					1	1	0
PATHOLOGY .. .. .					3	3	0
PATHOLOGY, PRACTICAL .. .. .					4	4	0
PHARMACOLOGY .. .. .					3	3	0
PHYSICS, INTRODUCTORY COURSE FOR STUDENTS							
IN THE FACULTY OF ARTS .. .. .					2	2	0
PHYSICS, ALL OTHER COURSES .. .. .					3	3	0
PHYSICS, PRACTICAL .. .. .					3	3	0
PHYSIOGRAPHY .. .. .					2	2	0
PHYSIOLOGY .. .. .					3	3	0

\* For Year.

† In the Faculty of Law, the fee payable by Students not going through the regular course is two guineas per Term for each subject.

# TABLE OF FEES.

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LECTURE FEES <i>per term—continued.</i>					£	s.	d.
PHYSIOLOGY, PRACTICAL	..	..	..	..	3	3	0
POSOLOGY, ETC.	..	..	..	..	1	1	0
PSYCHOLOGICAL MEDICINE	..	..	..	..	1	1	0
PUBLIC HEALTH	..	..	..	..	3	3	0
QUANTITATIVE ANALYSIS ( <i>see Practical Chemistry</i> )							
SURGERY	..	..	..	..	3	3	0
SURGERY, CLINICAL	..	..	..	..	2	2	0
SURGERY, OPERATIVE	..	..	..	..	4	4	0
SURGERY, TUTORIAL	..	..	..	..	* 1	1	0
SURVEYING	..	..	..	..	2	2	0
ZOOLOGY	..	..	..	..	2	2	0
DEGREE FEES—							
B.A.	..	..	..	..	3	0	0
M.A.	..	..	..	..	5	0	0
LL.B.	..	..	..	..	10	0	0
LL.D.	..	..	..	..	10	0	0
M.B.	..	..	..	..	10	0	0
M.D.	..	..	..	..	10	0	0
Ch.M.	..	..	..	..	10	0	0
B.Sc.	..	..	..	..	3	0	0
D.Sc.	..	..	..	..	10	0	0
B.E.	..	..	..	..	10	0	0
M.E.	..	..	..	..	10	0	0
B.D.S.	..	..	..	..	10	0	0
Fee for use of Microscope ( <i>per course</i> )					1	0	0
,, ,, in Geological Department					1	10	0
Fee for entering name on books, to be paid by those who are admitted <i>ad eundem statum</i> or <i>gradum</i>					2	0	0
YEARLY EXAMINATION FEE for students who have been exempted from attendance upon lectures					2	0	0
Fee payable for a deferred examination †					2	0	0
P. N. RUSSELL SCHOLARSHIP EXAMINATION					1	10	0
PUBLIC EXAMINATION FEES—							
SENIOR EXAMINATION..					1	10	0
JUNIOR ,,					1	0	0
LATE FEE FOR ENTRIES FOR ALL EXAMINATIONS					0	10	0
PRELIMINARY EXAMINATION FOR ARTICLED CLERKS (payable to the Prothonotary)					5	10	6

\* For Year. † For fees for deferred Degree Examinations, see By-laws.

**TABLE OF FEES SHOWING THE TOTAL COST OF  
GRADUATION IN MEDICINE.**

		<i>Old Curriculum.</i>			<i>New Curriculum.</i>		
1st Year—		£	s.	d.	£	s.	d.
Chemistry .. ..	..				6	6	0
Practical Chemistry ..	..				6	5	0
Physics .. ..	..				6	6	0
Practical Physics ..	..				3	3	0
Biology .. ..	..				4	4	0
Practical Biology*	..				4	4	0
Practical Histology*	..				3	3	0
Introductory Anatomy ..					3	2	0
					<hr/>		
						39	17 0
2nd Year—							
Descriptive Anatomy ..					6	6	0
Physiology .. ..	..				6	6	0
Practical Physiology*	..				3	3	0
Physiological Chemistry					3	3	0
Applied Logic .. ..	..				1	1	0
Dissections and material ..					9	9	0
Chemistry—Organic ..					3	3	0
					<hr/>		
						32	11 0
3rd Year—							
Regional and Surgical Anatomy					5	5	0
Physiology (Senior) ..					3	3	0
Pharmacology .. ..	..				3	3	0
Dissections and material					9	9	0
General Pathology ..					3	3	0
Practical Pathology*	..				4	4	0
Tutorial Surgery ..					1	1	0
					<hr/>		
						29	8 0
4th Year—							
Surgery .. ..	..	6	6	0	6	6	0
Pathology .. ..	..	6	6	0	3	3	0
Operative Surgery ..	..	4	4	0	4	4	0
Clinical Surgery ..	..	4	4	0	4	4	0
Practical Pathology ..	..	4	4	0			
Tutorial Surgery ..	..	1	1	0	1	1	0
Medicine .. ..	..				3	3	0
Midwifery .. ..	..				3	3	0
		<hr/>			<hr/>		
			26	5 0		25	4 0
Carried forward ..						<hr/>	
						£127	0 0

\* To those students who use the University Microscope a fee of £1 for each course is charged.

# TABLE OF FEES.

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TABLE OF FEES SHOWING THE TOTAL COST OF GRADUATION IN  
MEDICINE—continued.

		Old Curriculum.			New Curriculum.		
		£	s.	d.	£	s.	d.
<i>Brought forward</i> ..						£127	0 0
5th Year—							
Midwifery and Gynæcology		6	6	0	—		
Medicine .. ..		6	6	0	3	3	0
Medical Jurisprudence and Public Health .. ..		3	3	0	3	3	0
Clinical Medicine .. ..		4	4	0	4	4	0
Ophthalmic Medicine and Surgery .. ..		1	1	0	1	1	0
Psychological Medicine .. ..		1	1	0	1	1	0
Tutorial Medicine .. ..		1	1	0	1	1	0
Gynæcology .. ..		—			3	3	0
Posology and Prescription Writing .. ..		—			1	1	0
*Two of the undermentioned elective courses .. ..		—			5	5	0
			23	2 0		23	2 0
Total Lecture Fees.. ..						£150	2 0
Matriculation Fee .. ..		2	0	0		2	0 0
Fee for M.B. Degree .. ..		10	0	0		10	0 0
Total Fees payable to University ..						£162	2 0
Perpetual Attendance at the Royal Prince Alfred Hospital	10 10 0				10 10 0		
Practical Midwifery .. ..	5 5 0				5 5 0		
Practical Pharmacy .. ..	3 3 0				3 3 0		
Fees payable to Hospitals		18	18	0		18	18 0
Total Cost of Education and Graduation as M.B. .. ..						£181	0 0
* { Special Bacteriology (Microscope fee, £1 additional)					£4	4	0
{ Special Therapeutics .. ..					1	1	0
{ Diseases of Children .. ..					1	1	0
{ Diseases of the Skin .. ..					1	1	0
{ Diseases of the Ear, Nose and Throat .. ..					1	1	0

**TABLE OF FEES SHOWING THE TOTAL COST FOR  
GRADUATION IN DENTISTRY.**

1st Year—	£	s.	d.	£	s.	d.
Descriptive Anatomy .. .. .	3	3	0			
Anatomy of Teeth .. .. .	1	1	0			
Dissections (including Material) .. .. .	6	6	0			
Practical Histology* .. .. .	3	3	0			
Chemistry—Introductory .. .. .	3	3	0			
„    Metals .. .. .	3	3	0			
„    Practical .. .. .	5	5	0			
Practical Metallurgy .. .. .	3	3	0			
Physics .. .. .	6	6	0			
Practical Physics .. .. .	3	3	0			
Mechanical Workshop .. .. .	6	6	0			
				44	2	0
2nd Year—						
Regional Anatomy .. .. .	2	12	6			
Dissections (including Material) .. .. .	6	6	0			
Physiology .. .. .	6	6	0			
„    (Practical)* .. .. .	3	3	0			
Mechanical Dentistry .. .. .	4	4	0			
Surgical Dentistry .. .. .	4	4	0			
Mechanical Workshop .. .. .	6	6	0			
Hospital Fee .. .. .	5	5	0			
				38	6	6
3rd Year—						
Physiology .. .. .	3	3	0			
General Pathology and Bacteriology .. .. .	3	3	0			
Practical Pathology* .. .. .	4	4	0			
Materia Medica and Therapeutics .. .. .	3	3	0			
Mechanical Dentistry .. .. .	4	4	0			
Surgical Dentistry .. .. .	4	4	0			
Mechanical Workshop .. .. .	6	6	0			
Hospital Fee .. .. .	5	5	0			
				33	12	0
4th Year—						
Surgery and Dental Surgery .. .. .	3	3	0			
Anæsthetics .. .. .	1	1	0			
Clinical Medicine .. .. .	3	3	0			
Clinical Surgery .. .. .	3	3	0			
Special Dental Clinics .. .. .	3	3	0			
Hospital Fee .. .. .	5	5	0			
				18	18	0
				134	18	6
Matriculation Fee .. .. .	2	0	0			
License Fee .. .. .	10	0	0			
				12	0	0
				£146	18	6

\* To those students who use the University Microscope a fee of £1 for each course is charged.



TABLE OF FEES SHOWING THE TOTAL COST OF GRADUATION IN THE  
DEPARTMENT OF ENGINEERING.

				<i>Civil.</i>	<i>Mining and Metallurgy.</i>	<i>Mechanical and Electrical.</i>
				£ s. d.	£ s. d.	£ s. d.
<b>FIRST YEAR—</b>						
Mathematics	...	...	...	6 6 0	6 6 0	6 6 0
Applied Mechanics	...	...	...	2 2 0	2 2 0	2 2 0
Chemistry—Inorganic	...	...	...	6 6 0	6 6 0	6 6 0
Practical Chemistry	...	...	...	8 5 0	8 5 0	8 5 0
Physics and Practical Physics	...	...	...	9 9 0	9 9 0	9 9 0
Descriptive Geometry	...	...	...	3 3 0	3 3 0	3 3 0
Engineering Drawing	...	...	...	6 6 0	6 6 0	6 6 0
Practical Engineering	...	...	...	1 1 0	1 1 0	1 1 0
				<u>£42 18 0</u>	<u>£42 18 0</u>	<u>£42 18 0</u>
<b>SECOND YEAR—</b>						
Mathematics	...	...	...	6 6 0	.....	6 6 0
Physics II. and Practical Physics	...	...	...	12 12 0	9 9 0	12 12 0
Surveying I.	...	...	...	4 4 0	.....	4 4 0
Mechanical Engineering I. and Practical	...	...	...	6 6 0	4 4 0	6 6 0
Civil Engineering I.	...	...	...	2 2 0	2 2 0	2 2 0
Engineering Drawing and Design	...	...	...	6 6 0	3 3 0	6 6 0
Workshop Practice	...	...	...	.....	.....	6 6 0
Geology I. and Practical Geology*	...	...	...	.....	6 6 0	.....
Practical Chemistry	...	...	...	.....	11 0 0	.....
				<u>£37 16 0</u>	<u>£36 4 0</u>	<u>£44 2 0</u>
<b>THIRD YEAR—</b>						
Mathematics	...	...	...	.....	.....	4 4 0
Civil Engineering II.	...	...	...	6 6 0	.....	2 2 0
Civil Engineering III.	...	...	...	4 4 0	2 2 0	2 2 0
Mechanical Engineering II.	...	...	...	.....	3 3 0	6 6 0
Geology and Practical Geology*	...	...	...	6 6 0	6 6 0	.....
Surveying	...	...	...	2 2 0	4 4 0	.....
Architecture and Building Construction	...	...	...	2 2 0	1 1 0	.....
Engineering Drawing and Design	...	...	...	6 6 0	6 6 0	4 4 0
Engineering Laboratory	...	...	...	6 6 0	2 2 0	2 2 0
Mineralogy	...	...	...	.....	4 4 0	.....
Practical Metallurgy and Assaying	...	...	...	.....	4 0 0	.....
Practical Chemistry	...	...	...	.....	.....	2 0 0
Electrical Engineering I.	...	...	...	.....	2 2 0	4 4 0
Electrical Engineering Laboratory	...	...	...	.....	2 2 0	2 2 0
				<u>£38 12 0</u>	<u>£37 12 0</u>	<u>£29 6 0</u>
<b>FOURTH YEAR—</b>						
Mining	...	...	...	.....	4 4 0	.....
Metallurgy	...	...	...	.....	4 4 0	.....
Practical Metallurgy and Assaying	...	...	...	.....	21 0 0	.....
Mining and Metallurgical Design	...	...	...	.....	3 3 0	.....
Mechanical and Electrical Design	...	...	...	.....	.....	6 6 0
Electrical Engineering II.	...	...	...	.....	.....	6 6 0
Mechanical Engineering III.	...	...	...	.....	.....	4 4 0
Electrical Engineering Laboratory	...	...	...	.....	.....	9 9 0
					<u>£32 11 0</u>	<u>£26 5 0</u>
Matriculation Fee	...	£2 0 0	.....	.....	.....	.....
Fee for B.E. Degree	...	10 0 0	12 0 0	12 0 0	12 0 0	12 0 0
<b>Total cost for Degree of B.E.—</b>						
Civil Engineering	...	...	£126 6 0	.....	.....	.....
Mining and Metallurgy	...	...	.....	£161 5 0	.....	.....
Mechanical and Electrical	...	...	.....	.....	£154 11 0	.....

\*To those students who use the University Microscope a fee of £1 for each course is charged.

## MICROSCOPES.

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In the Practical Courses of Biology\*, Physiology, Pathology, and Bacteriology, students may use the microscopes provided by the University, for the use of which a charge is made. But they are strongly recommended to purchase for themselves microscopes of an approved pattern, and to use them throughout their course. A microscope suitable for bacteriological work, and for the proper clinical examination of the blood, is now an essential part of the equipment of every medical man. It is, moreover, a great advantage for the student to use his own microscope during his undergraduate course, as he thus becomes familiar with its working, and is in a better position to profit by its use in after years. With the exercise of a little care the efficiency of a good microscope will not thereby be impaired.

Excellent microscopes are supplied by the English firms, Swift, Beck, Ross, and Watson; by the American firm, Bausch and Lomb; and by the Continental firms, Zeiss, Reichert, and Leitz. The student is particularly warned against the purchase of an inferior type of microscope which will not be approved by the Professors, and it is hardly necessary to point out that not every microscope made by the above-named firms is of a type that can be approved. Students are, therefore, invited to consult the Professors before making any purchase.

The following types of microscope, procurable in Sydney from agents of the manufacturers, are recommended as adequate, and at the same time moderate in price. With the accessories given they are adapted for the Practical Biology and the Practical Physiology:—

W. Watson & Sons' Edinburgh Student's Microscope, Stand "B," with  $\frac{3}{4}$  and  $\frac{1}{4}$  inch objectives, Nos. 2 and 4 eye-pieces, double nose-piece, and illuminating apparatus. Price, £10 12s. 6d.

Or W. Watson & Sons' Stand "C," similar to "B," but with better illuminating apparatus, etc. £12 17s. 6d.

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\* See also under Geology and Mineralogy on next page.

Bausch & Lomb's Microscope BB<sup>6</sup>, with double nose-piece, Abbé condenser, No. 3 eye-piece, and 3 and 6 objectives. Price, £12.

Leitz's No. 2A, with double nose-piece and Abbé condenser, £10 9s.

Reichert's Stand III., with Abbé condenser, objectives 3 and 7 of best series, ocular 3, double nose-piece. About £9.

For the Practical Pathology and Bacteriology a higher power objective is required—preferably a  $\frac{1}{1\frac{1}{2}}$  homogeneous immersion, which costs about £5 10s.

#### DEPARTMENT OF GEOLOGY AND MINERALOGY.

Students may use their own microscopes in the demonstrations on Petrology, provided they are of a pattern approved by the demonstrator, to whom they must be shown beforehand. Students who wish to obtain a microscope suitable for both Biology and Geology should purchase a petrological, and not simply a biological, stand. Advice will always be willingly given to any students desiring to purchase a microscope. The microscopes in use for demonstrations are the following:—

- (1) Student's Petrological Microscope, with centering stage or nose-piece, revolving double nose-piece, and two objectives, both of highest numerical aperture. The latter should be 1 inch and  $\frac{1}{2}$  inch, or  $1\frac{1}{2}$  inch and  $\frac{1}{2}$  inch. The best combination is of three or triple nose-piece,  $1\frac{1}{2}$  inch,  $\frac{1}{2}$  inch, and  $\frac{1}{2}$  inch. Price in London, about £14, including two objectives.
- (2) The Dick Petrological Microscope, with revolving nose-piece and objectives as in (1). Price in London, about £23, including two objectives.

The above microscopes are made by Messrs. James Swift and Son, 81 Tottenham Court Road, London, W.

## FOUNDATIONS.

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### I.

#### CHALLIS FUND.

IN 1880, the late John Henry Challis, Esq., formerly of Sydney, bequeathed his residuary real and personal estate to the University, "to be applied for the benefit of that Institution in such manner as the governing body thereof shall direct." The bequest was subject to a tenure until death or re-marriage on the part of his widow, and to the payment of various annuities, and also to a period of five years' accumulation after such death or re-marriage. By the death of the widow, in September, 1884, the University became entitled to the accumulated property in September, 1889. The assets are invested partly in England and partly in New South Wales, and all the specific bequests have been paid.

The assets in England, amounting to £30,000, were retained by the Trustees until the expiration of certain annuities in 1905. Those in Australia amount to £245,200.

By a resolution of the Senate passed in 1885, it was determined that the Challis Fund should be applied as a permanent provision of income for educational uses.

From the income of the Fund a sum of £7,500 was applied for the payment of half the cost of the erection of a new Chemical Laboratory, and a further sum of £1,200 devoted to the erection of a marble statue of Mr. Challis, which has been placed in the Great Hall opposite to that of Mr. W. C. Wentworth.

The income arising from the Australian assets is now devoted to the maintenance of seven Challis Professorships in the following subjects, viz., Anatomy, Biology, Engineering, History, Law, Logic and Mental Philosophy and Modern Literature; and four Challis Lectureships in Law.

#### CHALLIS PROFESSORSHIPS.

Anatomy, 1890—James T. Wilson, M.B., Ch.M. (Edin.)

Biology, 1890—William A. Haswell, M.A., D.Sc. (Edin.)

Engineering, 1890—William H. Warren, M.Inst.C.E.

Law, 1890—Pitt Cobbett, M.A., D.C.L. (Univ. Coll., Oxon.)

Logic and Mental Philosophy, 1890—Francis Anderson, M.A. (Glasg.)

Modern Literature, 1890—Mungo W. MacCallum, M.A. (Glasg.)

History, 1891—G. Arnold Wood, M.A. (Oxon.)

#### CHALLIS LECTURESHIPS.

Equity, Probate, Bankruptcy, and Company Law, 1890—G. E. Rich, M.A.

The Law of Status, Civil Obligations and Crimes, 1890—F. Leverrier, B.A., B.Sc.

Law of Procedure in Civil and Criminal Cases, Evidence and Pleading, 1901—David Ferguson, B.A.

Law of Property, 1903—J. B. Peden, B.A., LL.B.

## II.

### THE PETER NICOL RUSSELL ENDOWMENT FOR THE DEPARTMENT OF ENGINEERING.

In 1896, Peter Nicol Russell, Esq. (now Sir Peter Russell), formerly of Sydney, but now living in London, presented to the University a sum of £50,000 for the endowment of the Department of Engineering in the University. In 1904 he presented a second sum of £50,000, making £100,000 in all.

The second gift was made as an extension of the first endowment, with an additional obligation for the establishment of efficient teaching in electrical engineering, and for the foundation of two additional P. N. Russell Scholarships, to be offered for competition every year, similar to those already established under the first endowment.

In making the second endowment, Sir Peter Russell stipulated that the Government of New South Wales should undertake to hand to the University, within three years, a sum of £25,000 for the purpose of providing an extension of the buildings required for the purposes of the School of Engineering or for new buildings; and this the Government has agreed to do.

The conditions of the gift are the following :—

1. That the Department of Engineering at present existing in the University, together with such additions as may be made thereto, shall be called the P. N. Russell School of Engineering.
2. That the University shall, out of the income to be derived from the endowments afford both practical and theoretical teaching in the following subjects, in so far as such subjects relate to the School of Engineering—viz., Mechanical Engineering, Electrical Engineering, Surveying, Mining, Metallurgy, Architecture, and such further instruction as the Senate of the University may deem necessary to give effect to the intention of Sir Peter Russell in connection with the P. N. Russell School of Engineering.
3. The University shall apply the income of the Fund in the maintenance of the P. N. Russell School of Engineering, but shall not charge such income with any proportion of the cost of the existing buildings, nor with the expense or any proportion thereof of service by ordinary attendants, nor with the expense or any proportion thereof of the Professorships of Mathematics, Chemistry, Physics, Geology, or the Challis Chair of Engineering.
4. The University shall offer for competition in each year two additional Peter Nicol Russell Scholarships in addition to the one previously founded, the conditions of which are given below.

Other conditions of the Deeds of Gift relate to the mode of investment of the principal sum, and provide that any unused surplus of income shall be added to the principal sum and invested as if it formed a part of the original donation.

A portion of the income of the Russell Fund has been devoted to the maintenance of the following offices :—

Lecturer in Mechanical Engineering, 1897—S. Henry Barraclough, B.E. (Sydney), M.M.E. (Cornell), Assoc. M. Inst. C.E.

Lecturer in Surveying, 1890—George H. Knibbs, L.S., F.R.A.S

Lecturer in Mining, 1892-1902 — E. F. Pittman, A.R.S.M.  
1903—F. Danvers Power, F.G.S.

Lecturer in Metallurgy, 1899—Basil W. Turner, A.R.S.M.

Lecturer in Architecture, 1887—John Sulman, F.R.I.B.A.

Lecturer in Electrical Engineering, 1905—Ernest Kilburn Scott, A.M.I.C.E., M.I.E.E.

Demonstrator in Engineering and Drawing, 1903—Alexander J. Gibson.

Junior Demonstrators in Engineering—Electrical—P. L. Weston, B.Sc., B.E.; Civil—J. M. C. Corlette, B.E.; Mechanical—L. R. Woodcock, B.E.

Mechanical Instructors—Henry Blay, Robert Hay.

#### PETER NICOL RUSSELL SCHOLARSHIPS FOR MECHANICAL ENGINEERING.

Under the gift of Sir Peter Nicol Russell, for the Endowment of the School of Engineering at the University, three Scholarships are offered annually, for the encouragement of higher education in Mechanical Engineering, under the following conditions:—

1. Every candidate must present evidence that he has satisfied one of the two following conditions:—

- (A) That he has been engaged in an approved workshop for a period of at least one year, and has, in addition, obtained certificates of having attended the following courses in the Sydney Technical College, and passed the necessary Examinations in the same:—  
Applied Mechanics, First and Second Year Courses;  
Mechanical Drawing, First and Second Year Courses;  
Mechanical Workshops, a two years' Course; or,
- (B) That he has been engaged, under approved conditions, in the study of practical Mechanical Engineering for at least *two* years, by apprenticeship or service in a mechanical workshop or drawing office, provided that one year at least shall have been spent in a workshop; or,
- (C) That he has been in attendance upon the day classes of the Sydney Technical College in the Department of Mechanical Engineering or the Department of Electrical Engineering for a period of three years, and has obtained the College diploma in one of those departments.

2.—The Scholarships will be awarded, after competitive Examination held in the month of March, and the holders will be styled “Peter Nicol Russell Scholars.”

3.—The subjects of Examination will be the following:—

- (a) Applied Mechanics (250 marks).
- (b) Mechanical Drawing (250 marks).
- \*(c) Arithmetic, including the elements of Mensuration (150 marks).
- \*(d) Algebra, including the Progressions, the Binomial Theorem for a positive index, and the properties and use of Logarithms (150 marks).
- \*(e) Geometry, Euclid I.—IV., VI., XI., propositions 1—21, with easy deductions (100 marks).
- \*(f) Trigonometry (150 marks).

Optional subjects (as in the Senior Public Examination), two may be taken—

- (a) English (150 marks).
- (b) Chemistry (150 marks).
- (c) Physics I., Properties of Matter, Sound, Heat and Light (150 marks).
- †(d) Physics II., Electricity and Magnetism (150 marks).
- \*(e) Geometrical Drawing and Perspective (100 marks).
- (f) French (150 marks).
- (g) German (150 marks).
- (h) Latin (150 marks).
- (i) Greek (150 marks).

Candidates must attain a certain standard in each of the compulsory subjects. They will be allowed to take two, but not more than two of the optional subjects, and in these they must also attain the prescribed standard.

Subject to this provision, the Scholarships will be awarded to the candidates who obtain the highest aggregate number of marks in this Examination, provided that they shall have shown sufficient merit to enable them, in the opinion of the Examiners, to profit by the award of a Scholarship.

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\* On and after March, 1907, the Mathematical Papers will be the following, as defined in the regulations for the Matriculation Examination, Division B:—(a) Algebra, including Arithmetic (150 marks). (b) Geometry, including Mensuration (150 marks). (c) Plane Trigonometry (150 marks). (d) Mechanics (150 marks). Geometrical Drawing and Perspective (100 marks) will be a compulsory subject.

† Physics II. will not be a subject of examination after March, 1906.



4.—The scholar will be required to commence attendance forthwith upon the University First Year Classes in the Department of Mechanical and Electrical Engineering, and he can only continue to hold the Scholarship so long as he shall be of good conduct, and shall attend regularly the courses prescribed in the University for candidates for the Degree of Bachelor of Engineering in the Department of Mechanical and Electrical Engineering, and shall pass all the prescribed Examinations.

5.—Each Scholarship will be of the value of £75 per annum, and will be tenable for four years, under the conditions mentioned in the preceding paragraph. The payments will be quarterly, commencing on the first of April after the student commences his University course.

6.—Those scholars who have, before entering upon their University course, qualified themselves for admission to the Department of Engineering by passing the Examination prescribed for that purpose, or who have in the Peter Nicol Russell Scholarship Examination passed in (i.) Latin and (ii.) Greek, or French or German,\* will be entitled, after completing the course, to the Degree of Bachelor of Engineering in Mechanical and Electrical Engineering.

Those who have not so qualified themselves beforehand will be entitled to certificates of their attendance and examination in individual subjects, and a certificate showing that they have held the Peter Nicol Russell Scholarship, under the prescribed conditions, for a period of four years—but not to any Degree.

The candidates' names, together with an examination fee of one pound ten shillings (£1 10s.), and all the required certificates, must be in the hands of the Registrar on the day set down in the University Calendar as the last day for receiving entries for the University Examinations in March.

1900—Vine-Hall, Roger	1904—Power, R.
1901—Morris, L. C.	Swain, H. J.
1902—Bellemey, S. J.	1905—Carleton, G. B.
1903—Norman, J. L.	Ada, W. L.
	Ranclaud, A. B. B.

### THE PETER NICOL RUSSELL MEDAL.

THE PETER NICOL RUSSELL MEDAL (value £20) is open to competition amongst Graduates in Engineering of not less than one nor more than three years' standing at the time of award. It is intended to encourage post graduate study. Candidates are

\* From March, 1907, English will also be required. See regulations for Matriculation Examination.

required to prepare and submit a thesis upon some subject connected with the studies in the Department of Engineering, under the regulations in force for the time being.

Candidates are required to hand in their theses to the Registrar not later than the first day of Lent Term. The subjects for the thesis are confined to the following :—

- I. Civil Engineering, including Engineering Construction in Iron, Steel, Timber, Masonry, and Concrete.
- II. Hydraulic and Sanitary Engineering.
- III. Railway Engineering, including Railway Location, Permanent Way, Locomotives and Rolling Stock and Railway Appliances.
- IV. Mechanical Engineering.
- V. Machinery, Mining and Ore Dressing, Machinery Appliances.
- VI. The Smelting of Copper and Lead.
- VII. The Wet Processes for the Extraction of Gold and Silver.
- VIII. Coke and its by-products.

1901—Madsen, J. P. V., B.Sc.

| 1903—Boyd, A., B.Sc., B.E.

### III.

#### LECTURESHIPS.

##### 1—WILLIAM HILTON HOVELL LECTURESHIP ON GEOLOGY AND PHYSICAL GEOGRAPHY.

In 1877, certain tenements and land situated in the city of Goulburn were bequeathed by the widow of the late William Hilton Hovell, Esq., of that district, for the endowment of a Professorship or Lectureship in Geology and Physical Geography, in honour of her late husband. The present estimated value of the property is £6000.

1877.—Archibald Liversidge, Christ's College, Cambridge.

1882.—William John Stephens, M.A., Queen's College, Oxford.

1891.—T. W. Edgeworth David, B.A., New College, Oxford.

#### IV. FELLOWSHIP.

##### WENTWORTH TRAVELLING FELLOWSHIP.

In 1862, the sum of £445 was given by W. C. Wentworth, Esq., to be invested and allowed to accumulate until it should reach an amount which, in the opinion of the Senate, would be sufficient for the foundation of a Travelling Fellowship, to be awarded upon certain specified conditions. The fund in December, 1904, was £2586 11s. 6d.

#### V. CURATORSHIP OF MACLEAY MUSEUM.

In 1888, the sum of £6000 was given to the Senate by the Hon. Sir William Macleay, M.L.C., to provide for the services of a Curator for the collections in Natural History which he had presented to the University. The present Curator, nominated by Sir William Macleay, is

1888—George Masters.

#### VI. \*SCHOLARSHIPS.

Awarded only when candidates exhibit a degree of proficiency satisfactory to the Examiners. No Undergraduate may hold more than two Scholarships at one time. Scholars are required to proceed with their studies in the respective Faculties in which their Scholarships are awarded.

##### 1—LEVEY SCHOLARSHIP.

Founded by Solomon Levey, Esq., by a gift of £500 (with accumulations), as an endowment for the education of orphan boys in the Sydney College. In 1853 the fund was transferred to the University of Sydney as an endowment for a Scholarship. Up to 1878 this Scholarship was awarded for general proficiency at the Matriculation Examination.

It is now awarded at the First Year Examination for proficiency in Chemistry and Physics, both theoretical and practical, to a student in the Faculty of Arts or in the Faculty of Science. It shall not be awarded more than once to the same student. It is tenable for one year, and is of the annual value of £40.

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\* The names of holders of Scholarships before the year 1895 will be found in the University Calendar for 1900.

1896—Woolnough, W. G.	1901—Close, J. C.
1897—Harker, G.	1902—Saunders, G. J.
1898—Madsen, John P. V.	1903—Weatherburn, C. E.
1899—Boyd, W. S.	1904—Atkinson, J.
Heden, E. C. B. } <i>æq.</i>	Sharp, L. H. } <i>æq.</i>
1900—Whitfield, H. E., B.A.	1905—White, C. J.

## BARKER SCHOLARSHIPS.

Founded in 1853 by a gift of £1000 (with accumulations) from Thomas Barker, Esq., for the encouragement of Mathematical Science.

## 2—BARKER SCHOLARSHIP, No. I.

Awarded at the Second Year Examination for proficiency in Mathematics. £50, tenable for one year.

1896—Chalmers, S. D.	1902—Wellisch, E. M.
1897—Griffiths, F. G.	1903—Weatherburn, C. E.
1898—Sawkins, Dansie T.	1904—Tomlinson, G. L.
1899—Stephen, H. M.	Skillman, Jessie } <i>æq.</i>
1900—Mort, H. S.	1905—Lyons, R. J.
1901—Vonwiller, O. U.	

## 3—BARKER SCHOLARSHIP, No. II.

Awarded at the Matriculation Examination for proficiency in Mathematics. £50, tenable for one year.

1896—Hawken, R. W. H.	1901—Brearley, E. A.
Waterhouse, G. A., <i>prox. acc.</i>	Diethelm, O. A. A. } <i>æq.</i>
1897—Boyd, W. S.	Weatherburn, C. E. }
Horn, W. R.	(a) 1902—Stephen, J. F.
Mort, H. S.	Henderson, R. G.** }
Stephen, H. M. } <i>prox. acc.</i>	Mottershead, A. }
1898—Mort, Harold S.	Paul, A. }
1899—Tivey, John P.	Tomlinson, G. L. }
Vonwiller, O. U. } <i>æq.</i>	1903—Lyons, R. J.
Smith, W., <i>prox. acc.</i>	1904—Dennis, S.
1900—Wellisch, E. M. } <i>æq.</i>	Watkins, H. L. } <i>æq.</i>
Roe, R. C.† }	1905—Utz, H. S.

## DEAS-THOMSON SCHOLARSHIPS.

Founded in 1854 by a gift of £1000 (with accumulations) from the Honourable Sir Edward Deas-Thomson, C.B., K.C.M.G., for the encouragement of the study of Natural Science.

† R. C. Roe did not comply with the conditions for holding a Scholarship.

\*\* Holder of two other Scholarships. (a) Two Scholarships awarded.

4—DEAS-THOMSON SCHOLARSHIP FOR PHYSICS.

Awarded at the Second Year Examination to a student in the Faculty of Arts or that of Science for proficiency in Physics. The scholar is required to attend the courses of instruction upon Physics during his tenure of the Scholarship. £50, tenable for one year.

1898—Durack, Joseph J. E.	1902—Close, J. C.
1899—Madsen, J. P. V.	1903—Taylor, T. G.
1900—Boyd, A.	1904—Mason, W. H.
1901—Vonwiller, O. U.	1905—Lusby, S. G.

5—THE DEAS-THOMSON GEOLOGY SCHOLARSHIP.

Awarded at the Second Year Examination in the Faculty of Science. Candidates must have attended the courses of instruction on Geology (together with Biology or Chemistry) of the Second year, and the scholar is required to attend the lectures and Laboratory practice of the Third Year in Geology and Mineralogy. £50, tenable for one year.

1899—Ball, C. L. } æq.	1902—Ward, L. K., B.A. *
Mort, S. R. }	Taylor, T. G.
1900—Heden, E. C. B., B.A. } æq.	1903—Jensen, H. I.
Newman, J. M.* }	1904—Foxall, H. G.
1901—Verge, John, B.A.	1905—Atkinson, J.

COOPER SCHOLARSHIPS.

Founded in 1857 by a gift of £1000 (with accumulations) from Sir Daniel Cooper, Bart., for the encouragement of Classical Literature.

6—COOPER SCHOLARSHIP, No. I.

Awarded at the Second Year Examination for proficiency in Classics. £50, tenable for one year.

1896—Whitfield, H. E.	1902—Barton, W. A.
1897—Evans-Jones, D. P.	1904—Henderson, R. G. } æq.
1898—Teece, R. C.†	Rogers, P. H. }
1899—Robson, R. N.	1905—MacCallum, M. L.
1900—Todd, F. A.	

7—COOPER SCHOLARSHIP, No. II.

Awarded at the Matriculation Examination for proficiency in Classics. £50, tenable for one year.

\* Did not comply with the conditions for holding the Scholarship.

† Holder of two other Scholarships.

1896—Teece, R. C.†  
       McEvoy, B. P.  
 1897—Robson, R. N.  
       Arnold, A. G. de L. } *prox.*  
       Bourne, Eleanor E. } *acc.*  
 1898—Power, Percy H.  
       Woodd, G. N. }  
       Todd, F. A. } *prox. acc.*

1899—Browne, C. S.\* }  
       Teece, R. N.† } *æq.*  
 1900—Allen, L. H.  
 1901—Harris, S. H.\*  
 1902—Henderson, R. G.  
 1903—Porter, W. E. T.  
       MacCallum, M. L., *prox. acc.*  
 1904—Schleicher, B. M. J.  
 1905—Castlehow, Stanley

## 8—COOPER SCHOLARSHIP, No. III.

Awarded at the First Year Examination for proficiency in Classics. £50, tenable for one year.

1896—Evans-Jones, D. P.  
 1897—Teece, R. C.†  
       Walsh, J. J.  
 1898—Robson, R. N.  
 1899—Todd, F. A.  
 1901—Barton, W. A.

Allen, L. H., *prox. acc.*  
 1903—Henderson, R. G. }  
       Rogers, P. H. } *æq.*  
 1904—MacCallum, M. L.  
 1905—Schleicher, B. M. J.  
       McKeown, F. M., *prox. acc.*

## 9—LITHGOW SCHOLARSHIP.

Founded in 1864 by a bequest of £1000 from William Lithgow, Esq. Awarded for proficiency in French and German at the Matriculation Examination. £50, tenable for one year.

1896—Nicholson, G. G.  
 1898—Armstrong, Ina B. H.  
 1899—Wilshire, Hector  
 1900—Sproule, Margaret

1901—Armstrong, Clare A. C.  
       Gale, B. C. L., *prox. acc.*  
 1902—Stephen, J. F.†  
 1903—Vaughan, E. F.\*  
       McIntosh, A. M.  
 1905—Not awarded

## 10—WIGRAM ALLEN SCHOLARSHIP.

Founded by gifts of £381 in 1867 (with accumulations), and £500 in 1883, from Sir George Wigram Allen, for the encouragement of the study of Law. Awarded for general proficiency in the subjects of Part I. of the Intermediate LL.B. Examination. £50 tenable for one year.

1896—Hammond, J. H., B.A.  
 1897—Mitchell, E. M., B.A.  
 1898—Dettmann, H. S., B.A.  
 1899—Pilcher, N. G. S., B.A.  
 1900—Butler, P. J., B.A. }  
       Rutherford, G. W., B.A. } *æq.*  
 1901—Teece, R. C., B.A.

1902—Fahey, B. F., B.A.  
 1903—Ferguson, J. A., B.A.  
 1904—Wilson, D., B.A. }  
       Teece, R. N., B.A. } *æq.*  
 1905—Jordan, F. R., B.A. }  
       Keal, E. T., B.A. } *æq.*

\* Did not comply with the conditions for holding the Scholarship.

† Holder of two other Scholarships.

11—RENWICK SCHOLARSHIP.

Founded in 1877 by a gift of £1000 from the Hon. Sir Arthur Renwick, B.A., M.D., for the encouragement of the study of Natural Science, including Comparative Anatomy. Awarded in the Faculty of Medicine for proficiency in the subjects of the First Year Examination in Medicine. £45, tenable for one year.

1896—Burfitt, W. F., B.A.	1901—Harrison, E. S. }	} æq.
1897—Macintosh, A. H.	Leslie, J. R.	
Graham, Mabel J., <i>prox. acc.</i>	1902—Parkinson, T. C.	
1898—Muscio, A.	1903—Shellshear, J. L.	
1899—Dansey, St. J. W.	1904—Archdall, M. }	} æq.
1900—Quaife, C.	Brearley, E. A.	
	1905—Sampson, G. A.	

12—GEORGE ALLEN SCHOLARSHIP.

Founded in 1877 by a bequest of £1000 from the Hon. George Allen. Awarded at the First Year Examination for proficiency in Mathematics. £40, tenable for one year.

1896—Griffiths, F. G.	1900—Vonwiller, O. U.
1897—Hawken, R. W. }	1901—Wellisch, E. M.
Morris, J. F. }	1902—Weatherburn, C. E.
Sawkins, D. T. }	1903—Mottershead, A.
Page, E. C. G.* }	1904—Lyons, R. J.
1893—Boyd, W. S.	1905—Watkins, H. L.
1899—Mort, H. S.	

13—BOWMAN-CAMERON SCHOLARSHIP.

Founded in 1877, by a bequest of £1100 from Andrew Robertson Cameron, Esq., M.D. Awarded every third year for general proficiency at the Matriculation Examination. £50, tenable for three years in the Faculty of Arts.

1896—Teece, R. C.	1902—Stephen, J. F.†*
1899—Browne, C. S.* }	Henderson, R. G.
Teece, R. N. }	1905—Castlehow, Stanley
Wilshire, H., <i>prox. acc.</i>	

14—FREEMASONS' SCHOLARSHIP.

Founded in 1880, by a gift of £1000 from the Freemasons of New South Wales under the Constitution of the Grand Lodge of England, for the endowment of a Scholarship in honour of the District Grand Master of the Order, John Williams, Esq. Awarded for general proficiency at the Matriculation Examination. Competitors must be the sons of Freemasons of five years,

\* Did not comply with the conditions for holding the Scholarship.

† Holder of two other Scholarships.

standing of the United Grand Lodge of New South Wales. If at any time there shall be no candidates for Matriculation eligible to compete for the Scholarship, or if any such candidates fail to show sufficient merit, it will be open to like competition at the First Year Examination. The Scholarship may be held in any Faculty. £50, tenable for three years, provided that the scholar shall so long faithfully pursue his studies in the University, and shall pass the Annual Examinations with credit. Applications for permission to compete for the Scholarship will be received not later than the last day for receiving entries for the Examination for Matriculation Honours and Scholarships.

1896—Teece, R. C.  
1899—Teece, R. N.

1902—Stephen, J. F.  
1905—Utz, H. S.

#### 15—CAIRD SCHOLARSHIP.

Founded in 1886, by a gift of £1000 from George S. Caird, Esq., for the encouragement of the study of Chemistry. Awarded at the Second Year Examination in the Faculty of Science, for proficiency in Chemistry. The Scholar is required to attend the theoretical and practical courses of instruction in Chemistry during the Third Year of the Faculty of Science. If there should be no suitable candidate at the Second Year Examination, the Scholarship may be awarded at the Third Year Examination, the holder being required to devote himself to research work in the Chemical Laboratory during his first post graduate year. £50, tenable for one year.

1898—Harker, George  
1900—Heden, E. C. B., B.A.  
1903—Jensen, H. I.

1904—Petrie, J. M., B.Sc.‡  
Gray, G. J., B.E.  
1905—Priestley, H.

#### 16—AITKEN SCHOLARSHIP

Founded in 1878 by a bequest of £1000 from James Aitken, Esq., of Grafton, for a Bursary or Scholarship. Up to 1893 it was applied as a Bursary. It is now awarded as a Scholarship for general proficiency at the Matriculation Examination in the years in which the Bowman-Cameron Scholarship is not awarded. £50, tenable for one year.

1895—Griffiths, F. G.  
1897—Horn, W. R.  
Bourne, Eleanor E., *prox. acc.*  
1898—Todd, Frederick A.

1900—Wellisch, E. M.  
Roe, R. C., *prox. acc.*  
1901—Diethelm, O. A. A.  
1903—Porter, W. E. T.  
1904—Sampson, G. A.

‡ Special award ; Research Scholarship for 1904, £100.



17—JAMES KING OF IRRAWANG TRAVELLING SCHOLARSHIP.

Founded in 1888 by a bequest of £4000 from William Roberts, Esq., of Penrith, for the foundation of a Scholarship or Scholarships, in memory of the late James King, of Irrawang, near Raymond Terrace. By the terms of the will, the choice of competitors and the decision of their respective merits are vested in the Senate, acting upon the advice of the Professors of Classics, Mathematics, Chemistry, Physics and Natural History. It has been decided that the sum shall be devoted to the foundation of a Travelling Scholarship, to be called the James King of Irrawang Travelling Scholarship, and to be awarded on the following conditions:—

1. The Scholarship shall be awarded to a Graduate of not more than four years' standing, reckoned from his qualification by examination for his first Degree.

2. The holder will be required to prosecute his studies or researches to the satisfaction of the Senate, in some approved place or places during the tenure of his Scholarship.

3. The amount of the Scholarship is £130 per annum, tenable for not more than two years.

Candidates' applications should be in the hands of the Registrar at least three weeks before the first day of Lent Term of the year in which the Scholarship is awarded.

1894—Henderson, G. C., B.A.	1900—Nicholson, G. G., B.A.
1896—Smith, G. E., M.D., Ch.M.	1902—Sawkins, D. T., B.A.
1898—Chalmers, S. D., B.A.	1904—Allen, L. H., B.A.

18—JOHN HARRIS SCHOLARSHIP.

Founded in 1887 by a gift of £1000 from John Harris, Esq., then Mayor of Sydney. Awarded for proficiency in Anatomy and Physiology at the Third Year Examination in Medicine. £40, tenable for one year.

1896—MacPherson, J., M.A., B.Sc.	1901—Mason, T. W.
1897—Willis, C. S.	1902—Buchanan, G. A.
1898—Burfitt, W. F., B.A.	1903—Quaife, C.*
1899—Barling, E. V. } æq.	Quaife, W. T. }
Graham, Mabel J. }	O'Reilly, Susannah H. } æq.
1900—Page, E. C. G. } æq.	1904—Parkinson, T. C.
Wallace, D., B.A. }	1905—Poate, H. R. G.
Muscio, A., <i>prox. acc.</i>	

## 19—COUNCIL OF EDUCATION SCHOLARSHIP.

Founded in 1889 by a gift of £300 from the Trustees of the subscribers to a Memorial of the late Council of Education for the foundation of a Scholarship to be called the Council of Education Scholarship. Competition for the Scholarship is to be confined to the sons of teachers or officers in the Department of Public Instruction. It is provided by the deed of gift that before any award is made the fund shall be allowed to accumulate until it shall reach such a sum as will provide a Scholarship of not less amount than those already established in the University. It is to be awarded at the Matriculation Examination for general proficiency, but only when the candidates show such proficiency as in the opinion of the Examiners will entitle them to the award of a Scholarship, and is to be tenable for three years. The fund in December, 1904, amounted to £573 10s. 6d.

## 20—SCIENCE SCHOLARSHIPS OF THE ROYAL COMMISSIONERS FOR THE EXHIBITION OF 1851.

Given by the Royal Commissioners of the Exhibition of 1851, to be awarded to a student of three years' standing for the prosecution of study and research in some branch of Science with a view of developing the manufactures and industries of his country. £150, tenable for two years.

1892—Barracough, S. H., B.E.

1893—Ledger, W. H., B.E.

1895—Watt, J. A., M.A., B.Sc.

1897—Strickland, Tom P., B.E.

1900—Durack, J. J. E., B.A.

1901—Harker, George, B.Sc.

1903—Boyd, A., B.Sc., B.E.

1905—Laby, T. H.

## 21—FRAZER SCHOLARSHIP.

Founded in 1890 by a bequest of £2000 from the Hon. John Frazer, M.L.C. £70.

1. The Scholarship is awarded upon the result of the Third Year Examination in History, combined with such further examination or other test as the Professor of History may from time to time determine.

2. Those students only are eligible who have just completed their Third Year, and who at the time of the election are qualified for the B.A. Degree.

3. One half of the Scholarship money will be paid to the successful candidate at the time of election. The second half will be paid to him (i.) on his passing an examination qualifying for the Degree of M.A., with Honours in History, within two

years of the date of his election, or (ii.) on his having within the same period pursued for at least one year, to the satisfaction of the Senate, some other course of historical study or research.

The Scholarship will be awarded in March to the student who shows most proficiency in the papers and essays set in connection with the Examination for Honours in the Third Year.

1896—Doust, Edith L., B.A. } <i>æq.</i>	1901—Mills, Elsie A. H., B.A.
Yarnold, A. H., B.A. }	1902—Teece, R. N., B.A.
Murray, Florence J., B.A.,	Mackness, Constance, B.A.,
<i>prox. acc.</i>	<i>prox. acc.</i>
1897—Chalmers, S. D., B.A.	1903—Cole, P. R.
1898—Lance, Elisabeth A., B.A. } <i>æ</i>	Kemp, R. C. King, <i>prox. acc.</i>
Pilcher, N. G. S., B.A. }	1904—Cramp, K. R.
1899—Teece, R. C., B.A.	1905—Paterson, J.
1900—Rutherford, Florence M., B.A.	Rogers, P. H., <i>prox. acc.</i>
Scrutton, C. Maude, B.A.,	
<i>prox. acc.</i>	

#### 22—WOOLLEY SCHOLARSHIPS.

The late Edwin Dalton, Esq., of Sydney, by his will in 1875, bequeathed his residuary estate, subject to a life interest on the part of his widow, and an annuity of £75, to the University to found "a Scholarship or Scholarships in commemoration of the late Dr. Woolley, its first Principal and Professor," desiring that the Scholarship or Scholarships so to be founded should "have reference to that branch of teaching or philosophy which the late Dr. Woolley chiefly inculcated." By the death of his widow in 1893 the University became entitled to the residuary estate, amounting to about £8000, subject to the annuity of £75.

The following are the regulations which have been adopted by the Senate for the award of the Scholarship:—

1. The Scholarship shall be awarded to a Graduate in Arts of less than four years' standing at the time of the award, reckoning from his qualification by examination for the B.A. Degree.

2. The Scholarship will be awarded by the Senate after report from the Professors of Greek, Latin, Modern Literature, Philosophy and History, who shall recommend to the Senate that candidate who in their opinion shows the greatest promise of success in further study of any one or more subjects falling under the heads of Language, Literature, History and Philosophy; provided that they consider such candidate to be of sufficient merit.

3. The holder will be required to prosecute his studies or researches to the satisfaction of the Senate at some approved place or places during the tenure of his Scholarship.

4. The amount of the Scholarship is £150 per annum, tenable for not more than two years.

5. An award of this Scholarship shall generally be made in alternate years with an award of the James King of Irrawang Travelling Scholarship.

Candidates' applications should be in the hands of the Registrar at least three weeks before the first day of Lent Term of the year in which the Scholarship is awarded.

1899—Dettmann, H. S., B.A.

1901—Todd, F. A., B.A.

1903—Merrington, E. N., M.A.

1905—Cole, P. R., B.A.

#### GARTON SCHOLARSHIPS.

Founded in 1898, by a bequest of £2050 from the late Thomas Garton, Esq., of Clapham, London, for the establishment of Scholarships for French and German and for Ancient History, or other subjects at the discretion of the Senate. Under the powers granted in the will, the Senate has determined to apply the fund to the foundation of two Scholarships for French and German.

##### 24—GARTON SCHOLARSHIP, No. I.

Awarded at the First Year Examination in the Faculty of Arts, for proficiency in French and German. £30, tenable for one year.

1900—Wilshire, H.

1901—Sproule, Margaret.

1902—Armstrong, Clare A. C.

1905—Not awarded

##### 25—GARTON SCHOLARSHIP, No. II.

Awarded at the Second Year Examination in the Faculty of Arts, for proficiency in French and German. £30, tenable for one year.

1899—Bailey, Margaret A.

1900—Armstrong, Ina B. H.

1901—Wilshire, H.

1902—Sproule, Margaret

1904—Armstrong, Clare A. C.

1905—McIntosh, A. M.

##### 26—GEORGE AND MATILDA HARRIS SCHOLARSHIP.

Founded in 1900, by a gift of £1700 from Mrs. Matilda Duff Harris, of Ultimo House, in memory of her late husband, George Harris, Esq., to be called the "George and Matilda Harris Scholarship," and to be "awarded in the Faculty of Law, for the encouragement of the study of Law, under such rules

and regulations as the Senate of the University may make from time to time for this purpose." Under this power it has been determined that the Scholarship "shall be awarded by the Senate in each year upon the results of Part II. of the Intermediate LL.B. Examination. £50, tenable for one year.

1901—Robson, R. N., B.A.

1902—Wilson, G. H., B.A.

1903—Kemp, R. C. King

1904—Rowland, N. de H., B.A.

1905—Rowland, N. de H., B.A.

Teece, R. N., M.A., *prox. acc.*

#### QUEEN VICTORIA SCHOLARSHIP.

In 1905 the sum of £540 was presented to the University by subscribers to a memorial of the late Queen Victoria for the foundation of a Scholarship.

The fund was formed by contributions from the general community, largely from the school children.

The conditions of award are as follows :—

1. That it be awarded to the best girl matriculant of the year, and be tenable for three years under the conditions usually existing for Scholarships.
2. That the Scholar shall satisfy the Chancellor, privately, that she requires the money, otherwise it shall be handed over to the Chancellor to be used for a bursary for girls, the original winner retaining the title of Queen Victoria Scholar.

The Scholarship is of the value of £20, and is tenable for three years.

1905—Maclean, Lillian A. } æq.  
Smith, Clara R. }

### VII.

#### MILITARY AND CIVIL APPOINTMENTS.

##### MILITARY COMMISSIONS.

A Commission in the British Army was offered annually to a student of this University under the regulations issued with Army Orders, dated 1st January, 1892. The regulations for the granting of such commissions to University Candidates are undergoing revision.

1895—Harris, John

| 1896—Johnson, Robert B. I.

##### MILITARY CADETSHIP AT SANDHURST.

The University has been granted the privilege of one nomination per annum to a Cadetship in the Royal Military College at Sandhurst. The regulations are undergoing revision.

## NAVAL MEDICAL SERVICE.\*

The Lords Commissioners of the Admiralty have decided to allot a certain number of Commissions as Medical Officers in the Royal Navy to qualified candidates in the Australasian Colonies under the following arrangement :—

1. During the next three years (1904-6) Australia is to be offered two Commissions a year, and New Zealand one in alternate years, i.e., six for Australia and two for New Zealand during that period.
2. The Candidates to be selected by the Governor-General of the Commonwealth and the Governor of New Zealand, respectively, after consulting the Commander-in-Chief on the Station, on the recommendation of the University Authorities.
3. Candidates must be registered Medical Practitioners, and hold suitable certificates in both medicine and surgery granted by the Universities of Sydney, Melbourne, or Adelaide, or the University of New Zealand.
4. The Candidates are either to be nominated direct or selected after passing an examination held by the local University according as the Governor and Admiral on the Station may determine. They must also pass the physical examination referred to in Clause 8 of the Regulations for entry of Candidates.
5. The selected Candidates are to be appointed provisionally only, their Commissions in the Royal Navy being determined by the result of a course of training at Haslar, in which they will be expected to qualify to the satisfaction of the Naval Medical Authorities.

OPEN COMPETITION EXAMINATIONS FOR THE CIVIL SERVICE OF INDIA,  
CLERKSHIPS (CLASS I.) IN THE HOME CIVIL SERVICE AND  
EASTERN CADETSHIPS.

These are held in London in the month of August each year. Every candidate is required to show that he had attained the age of twenty-two, and had not attained the age of twenty-four on the first day of August of the year in which the examination is held.

The full regulations will be found in the N.S.W. Government Gazette of the 28th of March, 1905, a copy of which may be seen in the Registrar's office.

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\* See regulations in University Calendar for 1904, p. 204.

VIII.  
EXHIBITIONS.

## 1—SALTING EXHIBITION.

Founded in 1858 by a gift of £500 (with accumulations) from Severin Kanute Salting, Esq., to be applied for the promotion of sound learning. Awarded on the recommendation of the Trustees of the Sydney Grammar School to a student proceeding thence to the University. £25, tenable for three years in the Faculty of Arts.

1894—Whitfeld, H. E.

1897—Stephen, H. M.

1900—Barton, W. A.

1903—MacCallum, M. L.

## 2—J. B. WATT EXHIBITIONS.

Founded in 1876 by a gift of £1000 from the Honourable John Brown Watt, and two subsequent gifts of £1000 each in 1888 and 1889. The Exhibitions are bestowed on the bursary principle (see p. 208), being not tenable in the Professional Schools, and are awarded to boys or youths who have been for at least three years in private colleges or schools. They are tenable for three years, and entitle the holders to £30 for the first year, £40 for the second, and £50 for the third year. The candidates must have passed with special credit either the Junior or Senior Public Examination. The Exhibition is intended to enable the holder to obtain a course of higher education, either at the University or elsewhere, subject to the direction of the Senate. The complete conditions of award will be found in the Manual of Public Examinations.

## 3—STRUTH EXHIBITION.

Founded in 1883 by a gift of £1000 from John Struth, Esq., for the foundation of an Exhibition to assist students of intellectual promise, but whose means are not otherwise sufficient for the purpose, in obtaining a Degree in the Faculty of Medicine. The Exhibition is awarded to a student who has completed the First Year of the Arts course upon the following conditions:—

1. The Deans of the Faculty of Arts and the Faculty of Medicine shall receive a satisfactory assurance that the means of the applicant are insufficient to enable him to proceed with the Medical course without some such pecuniary assistance.

2. Applications for permission to compete for the Exhibition, accompanied by the necessary certificates, must be sent to the Registrar at least fourteen days before the first day of the Annual Examinations.

3. The Exhibition shall be awarded to that candidate, of those who are allowed to compete, who shall show the greatest proficiency in the First Year Examination of the Arts course, and whose attainments and promise are such as to justify the award.

4. The holder, who shall at once proceed with his studies in the Faculty of Medicine, shall receive the sum of £40 per annum for five years; provided that he shall only continue to hold it on the condition that he is diligent and of good conduct, and that he passes creditably all the Examinations of his course. In the event of illness of the holder causing prolongation of his course of medical study, the case will be subject to the special consideration of the Senate. The Exhibition is open to students of either sex. The last award was made in March, 1902.

#### 4—HORNER EXHIBITION.

Founded in 1889 by a bequest of £200 from Francis Horner, Esq., M.A. Awarded for proficiency in Mathematics at the Matriculation Examination. It cannot be held with two other Scholarships in the University. In case of equality in order of merit in competition for the Exhibition, preference shall be given to a student matriculating direct from the King's School, Parramatta, or in the absence of a student from that School, to a candidate from Newington College, Stanmore. £8, tenable for one year.

1896—Hawken, R. W. H.	Deck, H. L.
Waterhouse, G. A., <i>prox. acc.</i>	Griffiths, J. N. } <i>æq.</i>
1897—Boyd, W. S.	Harris, J. S. }
Horn, W. R.	1901—Brearley, E. A.
Mort, H. S. } <i>prox. acc.</i>	Diethelm, O. A. A. } <i>æq.</i>
Stephen, H. M. }	Weatherburn, C. E. }
1898—Mort, Harold S.	1902—Henderson, R. G.*
1899—Tivey, J. P. } <i>æq.</i>	Mottershead, A. }
Vonwiller, O. U. }	Paul, A. }
Smith, W., <i>prox. acc.</i>	Tomlinson, G. L. }
1900—Wellisch, E. M.* } <i>æq.</i>	1903—Lyons, R. J.
Roe, R. C.† }	1904—Dennis, S. }
	Watkins, H. L. } <i>æq.</i>
	1905—Harrison, B. J. M.

\* Holder of two other Scholarships.

† R. C. Roe did not comply with the conditions for holding the Exhibition.



IX.

BURSARIES.

The Bursaries at the disposal of the University have all been created (on the initiation of the late Dr. Badham, when Professor of Classics) by private foundations at a cost of £1000 each, together with a margin in some cases to ensure prescribed annual awards amounting to £50; and they are helped, on the part of the Senate, by an accompanying exemption from all lecture fees.

They were created for the purpose of placing the advantages of education in this University within the reach of students, who, whilst giving sufficient promise of benefit, would otherwise be excluded through the want of financial means. And in order to secure privacy as regards the poverty of the candidates and their friends, the nominations are directed to be made by the Chancellor alone.

Other bursaries in greater number have lately been created by the Government in connection with the Public School system, but the University is not concerned in their award, although the Senate has conceded to them a like exemption from fees, upon like conditions.

Some of the founders indicate a preference for students from the country, but the majority are silent on this subject. In two, they "trust that the Senate will coincide in their opinion that except in cases where religion offers an insurmountable barrier, the bursar shall be required to reside in one of the Affiliated Colleges;" and in several, it is expressed that the bursaries are "to enable the recipient to reside in one of the Affiliated Colleges, or in some other place approved of by the authorities of the University from which he may attend the prescribed courses of lectures;" but in the great number there is no corresponding expression. In practice, the Senate has abstained from imposing any restrictions as to residence, not only in the case of bursaries, but of the whole body of students, notwithstanding Section 18 of the Incorporation Act.

In some cases the founders contemplated full bursaries of £50 a year, as for students from the country, though without prohibiting divisions of the amount; but more generally they either expressly allow of awards of £25 a year, or other less

sums than £50, or leave the matter open. And of late years the absence of new foundations has created a necessity for extending the usefulness of the bursaries by frequent divisions into halves; and the Senate has granted the same exemptions from fees as in the case of full bursaries.

No bursary is subject to any distinction of creed or of position, except that in one case a preference is expressed, but not imposed, for a student belonging to the donor's own Church, and in another the nomination is confined to sons of a minister of religion, but without distinction of Church; in both of which cases the founder bestowed a second bursary without any restriction.

All the bursaries, except five, which were given by Mr. Thomas Walker, in July, 1881, were founded before women were admitted to the University, and they were ostensibly for men only. But Mr. Walker's bursaries were for both sexes, and his instructions required that women should participate. The practice has since been to observe no distinction of sex.

All the bursaries were founded before the introduction of Professional Schools into the University, except those of Mr. Walker, which were on the verge of such introduction and which referred to a past intention, and all appear to have contemplated only the established three years' course in "Literature, Science, and Art," according to the Foundation Act of 1850. On which ground, and for appropriate and independent reasons, they are not available for students in Professional Schools.

The total number of full bursaries is eleven, in addition to which two more will eventually be created by means of surpluses which are required to be accumulated for the purpose. This enumeration is exclusive of the Exhibitions of Mr. Watt and Mr. Struth, and of the Levey and Alexander Endowment for Graduates, all of which are based on the bursary principle as to inadequacy of means.

The conditions on which the bursaries are conferred are:—

1. That the Chancellor shall have received satisfactory assurance that the candidate's own means, and those of his parents, guardians, "or other friends" (as expressed in some of the foundations), are insufficient to enable him to bear the cost of attending the University without the assistance of a bursary.

2. That the candidate is qualified by education and capacity to benefit by the University course, with which view some of the earlier foundations required that the candidate should be examined by the Professor of Classics and (in some cases "or") the Professor of Mathematics and certified by them, or one of them, to be intellectually fit. But as the University bursaries are now ordinarily granted after the Matriculation Examination, or an equivalent at the Public Examinations, this stipulation has dropped out of use.
3. That the bursar, if not already matriculated, shall matriculate at the commencement of the next Academic year after his appointment, and shall come into his attendance on lectures as the Senate may direct; and that he shall be diligent, and of good conduct; and that he shall pass creditably at the Annual Examinations during his tenure of the bursary.
4. Subject to the above conditions, the bursary is held for three years, except when granted to Undergraduates who have already gone through part of the three years' course, and have then become unable to finish their course without help, in which case the tenure is confined to the residue of the ordinary three years' course.

1—MAURICE ALEXANDER BURSARY.

In 1874, the sum of £1000 was given by Mrs. Maurice Alexander for the endowment of a bursary in memory of her late husband. The annual value is £45.

2—JOHN EWAN FRAZER BURSARY.

In 1876, debentures for £1250, at 4 per cent., were given by the Honourable John Frazer, M.L.C., for the endowment of a bursary, of the annual value of £50, to be called after the name of his deceased son, John Ewan Frazer.

3—ERNEST MANSON FRAZER BURSARY.

In 1876, debentures for £1250, at 4 per cent., were given by the Honourable John Frazer, M.L.C., for the endowment of a bursary, of the annual value of £50, to be called after the name of his deceased son, Ernest Manson Frazer.

## 4—WILLIAM CHARLES WENTWORTH BURSARY, No. I.

In 1876, the sum of £1000 was given by Fitz-William Wentworth, Esq., for the foundation of a bursary, of the annual value of £50, to be called after the name of his deceased father, William Charles Wentworth, Esq.

## 5—WILLIAM CHARLES WENTWORTH BURSARY, No. II.

In 1876, the further sum of £1000 was given by Fitz-William Wentworth, Esq., for the foundation of a second bursary, of the annual value of £50, to be called after the name of his deceased father, William Charles Wentworth, Esq.; but the founder directed that this sum should accumulate until it should reach £1500, that a second bursary should then be established, and that the surplus should accumulate until the sum of £1500 should again be reached, when a similar result is to follow. This foundation reached the sum of £1500 in 1886, and a second bursary was established accordingly.

## 6—WILLIAM CHARLES WENTWORTH BURSARY, No. III.

This fund was established in 1886 by the setting apart of the sum of £500 from the last-named foundation, to accumulate for the establishment of a third bursary in accordance with the directions of the founder. It amounted in December, 1904, to £1168 13s. 4d.

## 7—BURDEKIN BURSARY.

In 1876, the sum of £1000 was given by Mrs. Burdekin for the foundation of a bursary, to be called the Burdekin Bursary. The annual value is £40.

## 8—HUNTER-BAILLIE BURSARY, No. I.

In 1876, a sum of £1000 was given by Mrs. Hunter-Baillie for the foundation of a bursary, to be called the Hunter-Baillie Bursary. The annual value is £50.

## 9—HUNTER-BAILLIE BURSARY, No. II.

In 1877, a sum of £1000 was given by Mrs. Hunter-Baillie for the foundation of a bursary for the sons of ministers of religion. In the deed of gift the Senate is declared to be the sole judge of who are to be considered ministers of religion. The annual value is £50.

## 10--WALKER BURSARIES.

In 1881, the sum of £5000 was given by Thomas Walker, Esq., of Yaralla, Concord, for the foundation of bursaries. The gift was specially connected with the late resolution of the Senate, to grant to women equal participation with men in all University privileges, and it was desired by the founder that a portion of the bursaries—up to one half, as circumstances might dictate—should be made applicable to students of the female sex. Three bursaries, of the value of £50 per annum, are now awarded.

## 11--JESSIE E. DUNCAN BURSARY.

In 1901 the sum of £1000 was bequeathed to the University by Mrs. Jessie E. Duncan, widow of the late Dr. Duncan, R.N., for the foundation of a bursary in the Faculty of Arts, in accordance with such regulations as the Senate may determine.

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THE LEVEY AND ALEXANDER ENDOWMENT.

In 1879, a sum of £1000 was given by Mrs. Maurice Alexander for the purpose of establishing an endowment in the University, in memory of her late parents, Isaac and Dinah Levey. It is intended for young men who shall have gone through the regular University course, and shall have passed the Statutory Examination for the Degree of Bachelor of Arts in the University of Sydney, and graduated with credit to themselves, and who shall then be desirous of entering a liberal profession, but be without sufficient pecuniary means to bear the cost of the necessary preparation and superior instruction.

It is directed that no regard whatever shall be had to the religious creed or denomination of any candidate, provided that his personal character and repute shall be good, and that in determining any such award the only considerations shall be such as have reference to the character and to the abilities and learning of the candidate, as proved by University Examinations, and to his financial position.

The award is to be made to a Graduate who shall have recently taken his B.A. Degree; but the preference shall be given to one who had graduated in Honours.

The professions which are held specially in view are those of Medicine and Surgery, and of Law in either branch, and those of Architects, Surveyors and Engineers; but full discretion is

given to the University Senate to include any other secular profession which shall be deemed by them to be of a learned or liberal character.

It is intended that the Graduate selected under this endowment shall enjoy the income for three years either by one payment of not exceeding one hundred and fifty pounds (when sufficient accumulations are available) for fees or premiums on articles of pupilage; or by half-yearly payments of twenty-five pounds for three years; or partly in each way, as may be deemed by the Senate best for carrying out the objects in view. The last award was made in 1908.

THE HENRY WAIT BURSARY (IN MEDICINE).

Founded in 1900, by a bequest of £1000 from the late Henry Wait, Esq., of Redfern, "for the encouragement of the study of Medicine." The testator provides that the "Senate or Governing Body of the said University of Sydney shall be the proper person to appoint and determine the conditions and provisions of the said bursary, and to pay to the successful candidate for the same yearly, the amount to be fixed by them therefor." The bursary is awarded to a student who has completed the First Year of the Arts course upon the following conditions:—

1. The Deans of the Faculties of Arts and Medicine shall receive a satisfactory assurance that the means of the applicant are insufficient to enable him to proceed with the Medical course without some such pecuniary assistance.
2. Applications for permission to compete for the Exhibition, accompanied by the necessary certificates, must be sent to the Registrar at least fourteen days before the first day of the Annual Examinations.
3. The bursary shall be awarded to that candidate of those who are allowed to compete who shall show the greatest proficiency in the First Year Examination of the Arts course, provided he shall be deemed to have shown sufficient merit.
4. The holder, who shall at once proceed with his studies in the Faculty of Medicine, shall receive the sum of £40 per annum for five years; provided that he shall only continue to hold the bursary on the condition that he is diligent and of good conduct, and that he

passes creditably all the Examinations of his course. In the event of illness of the holder causing prolongation of his course of Medical study, the case will be subject to the special consideration of the Senate. The bursary is open to students of either sex. The last award was made in March, 1901.

5. The holder of this bursary is not exempt from the payment of any fees.

## X.

### \* PRIZES.

#### 1—WENTWORTH MEDAL.

Founded in 1854, by a gift of £200 from W. C. Wentworth, Esq., the interest to be applied for an Annual Prize for the best English Essay.

In 1889 the fund had accumulated sufficiently to provide for two Prizes of the value of £10 each, and a Prize is now given for competition amongst Undergraduates, and a second Prize for competition amongst Bachelors of Arts of not more than three years' standing.

#### GRADUATES' MEDAL.

1896—Griffith, J. S., B.A.	1901—Gough, N. J., B.A.	} seq.
1897—Cowan, David, B.A.	Read, Elizabeth J., B.A.	
Taylor, Eliz. I., B.A., <i>prox. acc.</i>	1902—Gough, N. J., B.A.	} seq.
1898—Dettmann, H. S., B.A.	Scrutton, C. Maude, B.A.	
1899—Dettmann, H. S., B.A.	1904—Green, H. M., B.A.	
	1905—Allen, L. H., B.A.	

#### UNDERGRADUATES' MEDAL.

1896—Dettmann, H. S.	1899—Gough, N. J.
1897—Dowling, F. V.	1900—Gough, N. J.
1898—Nicholson, G. G.	1905—MacCallum, M. L.

#### 2—NICHOLSON MEDAL.

Founded in 1867 by a gift of £200 from Sir Charles Nicholson, Bart., D.C.L., to provide an annual Prize for Latin Verse. The competition for this medal is open to all Undergraduates and Graduates of not more than two years' standing. Value, £10.

1902—Allen, L. H.	1904—Allen, L. H.
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\* The names of prize winners before the year 1894 will be found in the University Calendar for 1900.

## 8—BELMORE MEDAL.

Founded in 1870, by a gift of £300 from the Right Honourable the Earl of Belmore. Awarded annually to a member of the University, under the standing of M.A., for proficiency in Geology and Practical Chemistry, with special reference to Agriculture. The Examination is held in Michaelmas term. Value, £15. (See page 199.) The last award was made in 1885.

## 4—FAIRFAX PRIZES.

Founded in 1872, by a gift of £500 from John Fairfax, Esq. Awarded to the greatest proficient among the female candidates at the Senior and Junior Public Examinations. In the case of Seniors the candidates must not be over twenty-five years of age, and of Juniors seventeen years. Value, £15 and £10 respectively.

## SENIOR PRIZE.

1895—Lane-Latham, Ethel J.	1901—Skillman, Jessie
1896—Bourne, Eleanor E.	1902—Bourne, Florence I. } <i>æq.</i>
1897—Copas, Theodora E. J.	Watson, Maria E. }
1898—Knox, Marjory	1903—Jones, Grace E.
1899—Armitage, Lilian M.	1904—MacLean, Lillian Alexia
1900—Bilbrough, Jessie	

## JUNIOR PRIZE.

1895—Copas, Theodora E. J. } <i>æq.</i>	1898—Kellick, Stella M.
Middleton, Florence G. }	1899—Skillman, Jessie
1896—Bowmaker, Jessie } <i>æq.</i>	1900—Watson, Maria E.
Bruce, Grace Mitchell }	1901—Jones, Eveline G. } <i>æq.</i>
Mills, Elsie A. H. } <i>prox. acc.</i>	Ramsay, Muriel B. }
Stewart, Jessie I. }	1902—MacLean, Lillian Alexia
1897—Armitage, Lilian M. } <i>æq.</i>	1903—Norris, Mabel A. C.
Harkess, Blanche J. }	1904—Ballantine, Mabel A.
Sandford, Blanche V., <i>prox. acc.</i>	

## 5—JOHN WEST MEDAL.

Founded in 1874, by a gift of £200 from the subscribers to a memorial of the Reverend John West, Editor of the *Sydney Morning Herald*. Awarded to the greatest proficient in the Senior Public Examination. Value, £6.

1895—Teece, R. Clive	1899—Wellisch, E. M. } <i>æq.</i>
1896—Bourne, Eleanor E.	Roe, R. C. }
Horn, W. R. } <i>prox. acc.</i>	1900—Weatherburn, C. E.
Robson, R. N. }	1901—Stephen, J. F. } <i>æq.</i>
Stephen, H. M. }	Henderson, R. G. }
1897—Todd, F. A.	Thelander, C. A., <i>prox. acc.</i>
1898—Browne, C. S. } <i>æq.</i>	1902—Porter, W. E. T.
Teece, R. N. }	1903—Sampson, G. A.
Macrossan, H. D. } <i>prox. acc.</i>	1904—Castlehow, Stanley
Morton, H. G. S. }	



## 6—SMITH PRIZE.

Founded in 1854, maintained until the year 1885 by annual gifts, and subsequently by a bequest of £100 from the Honourable Professor Smith, M.D., C.M.G. Awarded to the best Undergraduate of the First Year in Experimental Physics. Value, £5.

1895—Burfitt, W. F.	1900—Close, J. C.
1896—Beaver, W. R. } æq.	1901—Weatherburn, C. E.
Harker, G. }	1902—Mason, W. H.
1897—Ward, L. K.	1903—Lusby, S. G.
1898—Jordan, G. E. G.	1904—Sampson, G. A. } æq.
1899—Fraser-Hill, Charlotte E.	Watkins, H. L. }

## 7—NORBERT QUIRK PRIZE.

Founded in 1886, by a gift of £144 from the subscribers to a memorial of the Rev. John Norbert Quirk, LL.D., late principal of Lyndhurst College. Awarded for proficiency in Mathematics at the Second Year Examination. Value, £5.

1896—Chalmers, S. D.	1902—Wellisch, E. M.
1897—Griffiths, F. G.	1903—Weatherburn, C. E.
1898—Sawkins, D. T.	1904—Tomlinson, G. L. } æq.
1899—Stephen, H. M.	Skillman, Jessie }
1900—Mort, H. S.	1905—Lyons, R. J.
1901—Vonwiller, O. U.	

## 8—SLADE PRIZES.

Founded in 1886, by a gift of £250 from G. P. Slade, Esq., for the encouragement of Science. Two prizes are awarded for proficiency in Practical Chemistry and Practical Physics respectively. Value, £5 each.

## CHEMISTRY.

1895—Reid, N.	1900—Giblin, N. E.
1896—Jack, R. L.	1901—Saunders, G. J.
1897—Winton, L. J.	1902—Foxall, H. G.
1898—Heden, E. C. B. } æq.	1903—Priestley, H.
Newman, J. M. }	1904—Carter, H. G. } æq.
1899—Whitfeld, H. E., B.A.	May, H. W. }

## PHYSICS.

1895—Woolnough, W. G.	1900—Gray, G. J. } æq.
1897—Madsen, J. P. V.	Stoddart, R. }
1898—Weston, P. L. } æq.	1901—Brown, G. F. Campbell
Wilson, R. C. }	1902—Shellshear, J. L.
1899—Lethbridge, H. O. } æq.	1903—Atkinson, J. } æq.
Whitfeld, H. E., B.A. }	Jones, S. W. }
	1904—Hammond, W. L. } æq.
	White, C. J. }

## 9—GRAHAME PRIZE MEDAL.

Founded in 1891, by a bequest of £100 from William Grahame, Esq., of Waverley. Awarded to such candidate as shall display the greatest general proficiency at the Senior Public Examination. Value, £4.

1895—Teece, R. Clive	1899—Roe, R. C.	} æq.
1896—Bourne, Eleanor E.	Wellisch, E. M.	
Horn, W. R.	1900—Weatherburn, C. E.	} æq.
Robson, R. N.	1901—Stephen, J. F.	
Stephen, H. M.	Henderson, R. G.	
1897—Todd, F. A.	Thelander, C. A., <i>prox. acc.</i>	
1898—Browne, C. S.	1902—Porter, W. E. T.	
Teece, R. N.	1903—Sampson, G. A.	
Macrossan, H. D.	1904—Castlehow, Stanley	
Morton, H. G. S.		

## 10—COLLIE PRIZE.

Founded in 1892, by a bequest of £100 from the Rev. Robert Collie, F.L.S., of Newtown. Awarded to a student of any Faculty at the First Year Examination in Botany. Value, £4.

1895—Burfitt, W. F., B.A.	1900—Quaife, W. T.
1896—Graham, Mabel J.	1901—McCulloch, H. T. C.
1897—Bourne, Eleanor E.	1902—MacInnes, A., B.A.
1898—Higgins, T. E. C.	1903—Dawes, Madeleine M.
1899—Buchanan, G. A.	1904—Ferguson, E. W.

## 11—BEAUCHAMP PRIZE.

Founded in 1901, by a gift of £625 from His Excellency the Right Hon. William Lygon, Earl Beauchamp, K.C.M.G., Governor of New South Wales. It is awarded for the best essay on some literary or historical subject, and is of the value of £25. The subject shall be determined either upon the recommendation of the donor or of the Professors of Classics, Modern Literature, History, Philosophy and Law. The Examiners shall be appointed by the Senate at the December meeting in each year. The competition is open to all Undergraduates and Graduates of not more than twenty-five 'Terms' standing from Matriculation. (See page 200.)

1902—Teece, R. Clive, M.A.	1905—Maxwell, W., B.A.
1904—Green, H. M., B.A.	

## 12—KAMBALA PRIZE.\*

In 1904 the sum of £250 was presented to the University by the members of the Kambala Girls' Union for the foundation of a prize to be awarded at matriculation to a pupil of a private

\* Names of prize winners, not necessarily implying the receipt of the prize money.

The prize is to be awarded annually to a matriculated student who, through pecuniary circumstances, is, in the opinion of the Chancellor, deemed such as to render her a suitable recipient of such a prize.

The term "private school" has been defined by the donors as including those schools the pupils of which are not entitled to compete for State University Bursaries.

**1905—Cohen, Fanny.**

## \*UNIVERSITY PRIZES.

### I.—M.A. EXAMINATION.

A Medal is awarded to the most distinguished candidate in the Honour Examination for the Degree of Master of Arts in the several schools, if of sufficient merit.

#### LOGIC, MENTAL, MORAL AND POLITICAL PHILOSOPHY.

1896—Smairl, J. H.	1902—Fletcher, M. Scott
1899—Garraan, R. R.	1903—Merrington, E. N.

#### MODERN HISTORY.

1901—Teece, R. C.

### II.—B.A. EXAMINATION.

A Medal is awarded to the most distinguished candidate in the Honour Examination for the Degree of Bachelor of Arts in the several schools, if of sufficient merit.

#### CLASSICS.

1896—Mitchell, E. M.	1900—Robson, R. N.
1897—Whitfeld, H. E.	1901—Todd, F. A.
Dettmann, H. S., <i>prox. acc.</i>	1903—Barton, W. A.
1898—Evans-Jones, D.P.	1904—Allen, L. H.
1899—Teece, R. C.	

#### MATHEMATICS.

1896—Stewart, D. G.	1903—Wellisch, E. M.
1897—Chalmers, S. D.	1904—Weatherburn, C. E.
1899—Sawkins, D. T.	

#### LOGIC AND MENTAL PHILOSOPHY.

1895—Rowland, N. de H.	1900—Merrington, E. N.
Whitfeld, Eleanor M. } <i>æq.</i>	1901—Bowmaker, Jessie } <i>æq.</i>
1896—Swanwick, K. ff.	Fry, F. Mildred }
1897—Wallace, D.	1902—Ferguson, J. A.
1898—Pilcher, N. G. S.	1903—Cole, P. R.
1899—Nicholson, G. G.	1904—Watts, P. R.

### III.—LL.B. EXAMINATION.

A Medal is awarded to the student who exhibits the greatest proficiency at the LL.B. Examination, if of sufficient merit.

1896—Bavin, T. R.	1900—Mitchell, E. M.
1898—Peden, J. B.	1903—Teece, R. Clive

\* The names of those who gained prizes before 1895 will be found in the University Calendar for 1900.

IV.—M.D. EXAMINATION.

A Medal is awarded to the candidate who exhibits the greatest proficiency at the M.D. Examination, if of sufficient merit.

- 1895—Smith, Grafton Elliot (Anatomy)  
1903—Sandes, Francis Percival (Surgery)

V.—M.B. EXAMINATION.

A Medal is awarded to the student who exhibits the greatest proficiency at the M.B. Examination, if of sufficient merit.

- |                     |  |                                  |
|---------------------|--|----------------------------------|
| 1896—Dixon, G. P.   |  | 1900—Burfitt, W. F., B.A., B.Sc. |
| 1898—MacPherson, J. |  | 1901—Macintosh, A. H.            |

VI.—B.Sc. EXAMINATION.

A Medal is awarded to the student who exhibits the greatest proficiency at the B.Sc. Examination, if of sufficient merit.

- |   |  |   |
|---|--|---|
| 1900—Madsen, J. P. V. (Mathematics)                   |  | 1902—Vonwiller, O. U. (Mathematics and Physics) |
| 1901—Petrie, J. M. (Chemistry)<br>Boyd, A. (Physics). |  |   |

VII.—M.E. EXAMINATION.

A Medal is awarded to the most distinguished candidate in the Honour Examination for the Degree of Master of Engineering, if of sufficient merit.

- |                  |  |                          |
|------------------|--|--------------------------|
| 1894—Dare, H. H. |  | 1896—Bradfield, J. J. C. |
|------------------|--|--------------------------|

VIII.—B.E. EXAMINATION.

A Medal is awarded to the student who exhibits the greatest proficiency at the B.E. Examination, if of sufficient merit.

- |                        |       |                                       |
|------------------------|-------|---------------------------------------|
| 1895—Doak, W. J.       | } æq. | 1901—Madsen, J. P. V. (Civil)         |
| Jackson, C. F. V.      |       | Boyd, W. S.                           |
| 1897—Strickland, T. P. |       | Newman, J. M. } æq. (Mining)          |
|                        |       | 1902—Boyd, A. (Civil)                 |
|                        |       | 1904—Weston, P. L. (Mechl. & Electl.) |

IX.—ENGLISH VERSE.

A Medal of the value of £10 is given by the University for the best composition in English Verse. The competition for this Medal is open to all Undergraduates and Bachelors of Arts of not more than two years' standing.

- |                         |  |                         |
|-------------------------|--|-------------------------|
| 1901—Austin, A. H.      |  | 1904—Green, H. M., B.A. |
| 1902—Austin, A. H.      |  | 1905—Allen, L. H., B.A. |
| 1903—Green, H. M., B.A. |  |                         |

## X.—UNIVERSITY PRIZE FOR PHYSIOGRAPHY.

A University Prize of the value of £5 is awarded to the student of the First Year who passes the best Class Examination in Physiography, if of sufficient merit.

1895—Evans-Jones, D. P.	1900—Maxwell, W.
1896—Harker, G.	1901—Goddard, E. J.
1897—Rutherford, Florence M.	Cramp, K. R., <i>prox. acc.</i>
Mutton, I., <i>prox. acc.</i>	1902—Flashman, H. W.
1898—Jarrett, Marjorie K. } <i>seq.</i>	1903—Hammond, W. L.
Poole, W.	Bridge, J. M., <i>prox. acc.</i>
Buchanan, G. A., <i>prox. acc.</i>	1904—Taylor, Dorothy R.
1899—Taylor, T. G. } <i>seq.</i>	
Mackness, Constance }	

## XI.—UNIVERSITY PRIZES AT PUBLIC EXAMINATIONS.

Prizes of £20 and £10 were appropriated annually by the Senate until the year 1894 for the greatest proficient amongst the male candidates at the Senior and Junior Public Examinations. A Prize of £5 is now offered for competition amongst the greatest proficient in the Junior Examination, the Prize for Seniors being withdrawn. The limit of age for Juniors is seventeen years.

## JUNIOR PRIZE.

1895—Browne, Claude S.	1901—McIntosh, A. M. } <i>seq.</i>
Woodd, George N., <i>prox. acc.</i>	Atkinson, J.
1896—Teece, R. N.	Mulcahy, F. B., <i>prox. acc.</i>
1897—Griffiths, J. N.	1902—Castlehow, S.
1898—Armstrong, R. S. } <i>seq.</i>	1903—Alden, M. C. } <i>seq.</i>
Neal, H. E.	Cohen, C. H.
Molesworth, E., <i>prox. acc.</i>	1904—Macrossan, N. W.
1899—Rogers, P. H. } <i>seq.</i>	Campbell, A. L.
Stephen, J. F.	Robinson, F. W. } <i>prox. acc.</i>
Paterson, John }	Vickers, J. G.
1900—MacCallum, M. L. } <i>seq.</i>	
Mottershead, A. }	

## \*PRIVATE ANNUAL PRIZES.

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**PATHOLOGY.**—Prizes, given by Dr. W. Camac Wilkinson, for proficiency in Pathology.

1896—MacPherson, J., M.A., B.Sc.	1899—Graham, Mabel J.
1898—Burfitt, W. F., B.A., B.Sc.	Macintosh, A. H., <i>prox. acc.</i>

**MATERIA MEDICA AND THERAPEUTICS.**—Prizes given by Dr. Thomas Dixon.

1896—Brennand, H. J. W., B.A.	1898—Graham, Mabel J.
1897—McLean, G.	1899—Page, E. C. G.
Burfitt, W. F., B.A., <i>prox. acc.</i>	1900—Dansey, St. J. W.

**ENGLISH.**—Prizes of £2 10s. each, given by Professor MacCallum for English Essays in the First and Second Years, and of £10 for proficiency in English in the Third Year.

### First Year.

1895—Forsyth, W. G.	1900—Allen, L. H.
1896—Nicholson, G. G.	Austin, A. H. } <i>æq.</i>
White, Margaret I. } <i>æq.</i>	1901—Watts, P. R.
1897—Gough, N. J.	1902—Paterson, J.
1898—Adams, Frances L.	1903—MacCallum, M. L.
Wilson, D. } <i>æq.</i>	1904—Taylor, Dorothy R.
1899—Teece, R. N.	

### Second Year.

1895—Dettmann, H. S.	1900—Fraser-Hill, Charlotte E. } <i>æq.</i>
1896—Dowling, F. V.	Fullerton, Lottie } <i>æq.</i>
1897—Read, Elizabeth J. } <i>æq.</i>	1901—Allen, L. H.
Withycombe, E. J. }	1902—Watts, P. R.
1898—Gough, N. J.	1903—Henderson, R. G.
1899—Wilson, D.	1904—MacCallum, M. L.

### Third Year.

1895—Beardmore, Ada	1901—Armstrong, Helen D. H.
1896—Dettmann, H. S.	1902—Waterhouse, E. G.
1897—Fidler, Isabel M.	Cole, P. R., <i>prox. acc.</i>
1898—Nicholson, G. G.	1903—Allen, L. H.
1899—Scrutton, C. Maude	1904—Not awarded.

\* The names of those who gained prizes before the year 1895 will be found in the Calendar for 1900.

BIOLOGY.—Prizes of £2 2s., given by Professor Haswell. for proficiency in Zoology.

1895—Woolnough, W. G.	1899—Buchanan, G. A.
Burfitt, W. F., <i>prox. acc.</i>	1900—Leslie, J. R.
1896—Graham, Mabel J.	1901—Palmer, C. R.
1897—Bourne, Eleanor E. } <i>æq.</i>	1902—Weatherburn, C. E.
Muscio, A.	1903—Archdall, M.
1898—Suckling, F. M.	1904—Ferguson, E. W.
Woolnough, R. E., <i>prox. acc.</i>	

BIOLOGY.—A Prize of £1 1s., given by Professor Haswell, for excellence in Laboratory notes.

1895—Holmes, H. G.	1901—Binney, Constance C. } <i>æq.</i>
Durack, W. J.	Gibson, D. D.
Harris, W. E.	Graham, D. H.
1896—Humphery, E. M.	1902—Bradley, C. H. B. } <i>æq.</i>
1897—Muscio, A.	Poate, H. R. G.
1898—Mansfield, W. C. } <i>æq.</i>	White, W. J.
Smith, S. A.	1903—Archdall, M. } <i>æq.</i>
1899—Connolly, T. P.	Ewing, T.
1900—Power, J. W.	1904—Child, Sophia R. } <i>æq.</i>
	Grigor, W. E.
	Parnell, Ethel C.
	Tebbutt, A. H., <i>prox. acc.</i>

GEOLOGY.—Prizes of £4 and £5 each, given by Professor David, for proficiency in Geology respectively in the Second and Third Years.

First Year.

1895—Graham, Mabel J.	1895—Griffiths, F. G.
-----------------------	-----------------------

Second Year.

1895—Shortland, W. A.	1900—Verge, J., B.A.
1896—Woolnough, W. G.	Mawson, D.
1897—Waterhouse, G. A.	1901—Green, L. C.†
1898—Ball, L. C.	1902—Jensen, H. I.
Winton, L. J.	1903—Foxall, H. G.
1899—Newman, J. M.	1904—Atkinson, J.
Heden, E. C., B.A., <i>prox. acc.</i>	

Third Year.

1897—Woolnough, W. G.	1901—Verge, J., B.A.
1898—Waterhouse, G. A.	1902—Taylor, T. G.
1899—Wilton, E. N.	1903—Jensen, H. I.
1900—Jordan, G. E. G. } <i>æq.</i>	1904—Foxall, H. G.
Peterson, A. J.	

† Unmatriculated.



**PRACTICAL PETROLOGY.**—Prize of £1, given by Professor David, for proficiency in Practical Petrology.

1899—Gregson, W. H., B.A.	1903—Nardin, C. C.
1901—Green, L. C.†	1904—Perry, E. A.†

**PHILOSOPHY.**—A Gold Medal, of the value of £10, given by Professor Anderson, M.A., for the best essay on a Philosophical subject; competition to be open to all Bachelors of Arts of not more than two years' standing.

1896—Cowan, D., B.A.	1902—Merrington, E. N., B.A.
1898—Wallace, D., B.A.	1904—Austin, A. H., B.A.
1899—Nicholson, G. G., B.A.	1905—Powell, J. G. W., B.A.
1900—Merrington, E. N., B.A.	

**LOGIC AND MENTAL PHILOSOPHY.**—Prizes of £5 each, given by Professor Anderson.

**Second Year.**

1896—Wallace, D.	1901—Ferguson, J. A.
1897—Pilcher, N. G. S.	1902—Cole, P. R.
1898—Nicholson, G. G.	1903—Watts, P. R.
1899—Merrington, E. N.	1904—Northcott, C. H. } <i>seq.</i>
Rutherford, Florence M., <i>prox.</i>	Paterson, J.
<i>acc.</i>	1905—Lovell, H. T.

**Third Year.**

1896—Swanwick, K. ff.	1901—Bowmaker, Jessie } <i>seq.</i>
Taylor, Elizabeth I., <i>prox. acc.</i>	Fry, F. Mildred
1897—Wallace, D.	1902—Ferguson, J. A.
1898—Pilcher, N. G. S.	1903—Cole, P. R.
1899—Nicholson, G. G.	1904—Watts, P. R.
1900—Merrington, E. N.	1905—Northcott, C. H. } <i>seq.</i>
	Paterson, J.

**HISTORY.**—Prize of £5, given by Professor Wood, for proficiency in History.

1896—Bloomfield, Elsie I' A.	1902—Cole, P. R.
1897—Lance, Elisabeth A.	Kemp, R. C. King } <i>seq.</i>
1898—Teece, R. C.	1903—Cramp, K. R. } <i>seq.</i>
1899—Robson, R. N.	Maxwell, W. } <i>seq.</i>
Rutherford, Florence M. } <i>seq.</i>	1904—Paterson, J. } <i>seq.</i>
1900—Mills, Elsie A. H.	Rogers, P. H. }
1901—Teece, R. N.	1905—Not awarded.

**FRENCH.**—Prize of Books given by the Comité de l'Alliance Française for proficiency in French.

1900—Gough, N. J.

**CLINICAL MEDICINE.**—Prize of £5, given by Dr. R. Soot-Skirving,  
for proficiency in Clinical Medicine.

1901—Moncrieff, E. W.

**METALLURGY**—Prizes of £3 and £2, given by Professor  
Liversidge, for proficiency in Practical Metallurgy.

1901—Freeman, C. C.

Heden, E. C. B., B.A., B.Sc.

1902—†Brereton, E. Le G.

†Stoddart, R.

1903—Saunders, G. J.

Barr, J.

1904—Stephen, J. F.

Burgess, J. H.

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† Not proceeding to a degree.

# HONOURS AT THE DEGREE EXAMINATIONS.

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## FACULTY OF ARTS.

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### M.A. EXAMINATION.

#### GREEK AND LATIN LITERATURE.

1876—Beatty, J. J. M.	1903—Class III.—Yarnold, A. H.
1897—Class II.—Pratt, F. V.	1904—Class II.—Jensen, Klio.
1902—Class II.—McLaren, A. D.	

#### MATHEMATICS.

1865—Murray, C. E. R.	1877—Butler, E. J.
1876—Rennie, E. H.	1900—Class II.—Sawkins, D. T.

#### LOGIC AND MENTAL PHILOSOPHY, ETC.

1887—Legge, J. G.	1896—Class II.—Millard, G. W.
1890—Woodthorpe, R. A.	1899—Class I.—Garran, R. R.
1892—Cooks, N. J.	Class II.—Taylor, Eliz. I.
Brennan, C. J.	1902—Class I.—Fletcher, M. S.
1894—Shaw, H. G.	1903—Class I.—Merrington, E. N.
1896—Class I.—Smairl, J. H.	Lasker, S.

#### ENGLISH LITERATURE AND POLITICAL PHILOSOPHY.

1894—Russell, F. A. A.

#### FRENCH AND GERMAN LITERATURE.

1904—Class I.—Wilshire, H.

#### LATIN AND MODERN FRENCH LITERATURE.

1895—Class II.—Bowmaker, Ruth.

#### LATIN AND OLD FRENCH LITERATURE.

1903—Class I.—Paxton, Betha.

1904—Class II.—Uther, Mary H.

#### PHILOSOPHY AND FRENCH LITERATURE.

1896—Class II.—Stonham, J.

#### ENGLISH LITERATURE AND MODERN HISTORY.

1897—Class II.—Doust, Edith L.

## MODERN HISTORY.

<p>1898—Class II.—Chalmers S. D. Edwards, E. S.</p> <p>1900—Class I.—Teece, R. C. Class II.—Lance, Elisabeth A.</p> <p>1902—Class II.—Jones, C. H. F. Class III.—Gordon, Emily I.</p> <p>1903—Class II.—Mills, Elsie, A. H. } Teece, R. N } seq. Nolan, J. H. M. }</p>	<p>1904—Class I.—Cole, P. R. Class III.—Crawford, T. S.</p> <p>1905—Class II.—Fullerton, Lottie (Mrs. Austin). Murray, Flor. J. (Mrs. Armitage).</p>
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## ENGLISH LITERATURE.

**1905—Class II.—Barnes, Pearl E.**

**\*B.A. EXAMINATION.**

**LATIN.**

1896.		1900.	
Class I.—	Mitchell, E. M.	Class I.—	Robson, R. N.
Class II.—	Murray, Florence J.		Hill, J. H. F.
Class III.—	Anderson, Maud E.	Class II.—	Bailey, Margaret A.
			Mutton, I.
		Class III.—	Uther, Mary H.
			Gough, N. J.
			Small, E. Ella
1897.		1901.	
Class I.—	Whitfeld, H. E.	Class I.—	Todd, F. A.
	Dettmann, H. S.		Mills, Elsie A. H. } æq.
Class II.—	Armstrong, Margaret J.		Paxton, Betha
	Hobbs, E.	Class II.—	Palmer, Selina E.
			Hill, J. G. W.
		Class III.—	Bruce, Grace M.
			Power, P. H.
1898.		1902.	
Class I.—	Fidler, Isabel M.	Class I.—	Fraser-Hill, Charlotte E.
	Evans-Jones, D. P.		Teece, R. N.
Class III.—	Dunnicliff, Mary C.	Class II.—	Ferguson, J. A.
			Sandford, Blanche V.
		Class III.—	Crisford, Hilda N. M.
			Larcombe, E. R.
1899.		1903.	
Class I.—	Teece, R. C.	Class I.—	Barton, W. A.
	Parsons, J.		Jensen, Klio
Class II.—	Galt, J.		
	Walsh, J. J.		
	Read, Elizabeth J.		
	Liggins, Jessie H.		
Class III.—	Marr, Fannie A.		
	Perkins, F. T.		

\* The names of those who obtained Honours before 1895 will be found in the University Calendar for 1900.

LATIN—*continued.*

1904.  
 Class I.—Allen, L. H.  
 Class II.—Levick, A. M. } *seq.*  
                   Jordan, F. R.  
                   Bonney, R. S.

1905.  
 Class I.—Henderson, R. G.  
 Class II.—Rogers, P. H.  
                   Graham, Frances

## GREEK.

1896.  
 Class I.—Mitchell, E. M.  
 1897.  
 Class I.—Dettmann, H. S. } *seq.*  
                   Whitfeld, H. E.  
 Class II.—Hobbs, E.

1898.  
 Class I.—Evans-Jones, D. P.

1899.  
 Class I.—Teece, R. C.  
                   Walsh, J. J.  
 Class II.—Galt, J.  
 Class III.—Perkins, F. T.

1900.  
 Class I.—Robson, R. N.  
 Class II.—Hill, J. H. F.  
 Class III.—Mutton, I.

1901.  
 Class I.—Todd, F. A.

1902.  
 Class I.—Teece, R. N.  
 Class III.—Larcombe, E. R.

1903.  
 Class I.—Barton, W. A.  
                   Jensen, Klio  
 Class II.—Stewart, J. R.  
 Class III.—Brentnall, Nina T.

1904.  
 Class I.—Allen, L. H.  
                   Bonney, R. S.  
 Class II.—Campbell, A. P.

1905.  
 Class I.—Paterson, J. } *seq.*  
                   Rogers, P. H.  
                   Henderson, R. G.

## FRENCH.

1896.  
 Class I.—Montefiore, Hortense H.  
 Class III.—Johnston, Mary E.

1897.  
 Class II.—Armstrong, Margaret J.  
                   Musmann, C. E. G.

1898.  
 Class I.—Fidler, Isabel M.  
 Class II.—De Lissa, Ethel N. } *seq.*  
                   Harwood, Marian F.  
                   Dey, Charlotte J.  
                   Jarvie, B.

1899.  
 Class I.—Nicholson, G. G.  
                   Parsons, J.  
 Class II.—Curtis, W. J.  
 Class III.—Page, A. E.  
                   Lee, T. N.

1900.  
 Class I.—Bailey, Margaret A.  
                   Gough, N. J.  
                   Uther, Mary H.  
 Class III.—Small, E. Ella

1901.  
 Class I.—Paxton, Betha  
                   Armstrong, Ina B. H.  
                   Palmer, Selina E.

1902.  
 Class I.—Mackness, Constance  
                   Wilshire, H.  
                   Fraser-Hill, Charlotte E.  
                   Armstrong, Helen D. H.  
 Class III.—Reid, Violet M.

## FRENCH—continued.

1903.	
Class I.	Sproule, Margaret Waterhouse, E. G. Sharpe, G. F. Docker, Gladys M. B. Wardrop, Maggie R.
1904.	
Class I.	Jordan, F. R. Murray-Prior, Doroth. K. MacCallum, Isabella R.
Class II.	Spence, J. Carey, Daisy

1905.	
Class I.	Armstrong, Clare A. C
Class II.	Graham, Frances Latreille, Meta G. E. } $\frac{1}{2}$
Class III.	Austin, Fanny M. Haigh, V.

## GERMAN.

1897.	
Class I.	Dettmann, H. S.
Class II.	Musmann, C. E. G.
1898.	
Class II.	Harwood, Marian F. De Lissa, Ethel N.
1899.	
Class I.	Nicholson, G. G.
1900.	
Class I.	Bailey, Margaret A.

1901.	
Class I.	Armstrong, Ina B. H.
1902.	
Class I.	Wilshire, H. Armstrong, Helen D. H.
1903.	
Class I.	Sproule, Margaret Waterhouse, E. G.
1905.	
Class I.	Armstrong, Clare A. C.

## ENGLISH.

1896.	
Class I.	Beardmore, Ada Bunting, Edith A. Doust, Edith L.
Class II.	Byrne, Lily C.
1897.	
Class I.	Dettmann, H. S.
Class II.	Barnes, Pearl E.
Class III.	Saunders, Eva F.
1898.	
Class I.	Fidler, Isabel M.
Class II.	Jarvie, B.
1899.	
Class I.	Nicholson, G. G.
Class III.	Slack, Ida M.
1900.	
Class I.	Scrutton, C. Maude
Class III.	Gough, N. J.
1901.	
Class II.	Armstrong, Ina B. H.

1902.	
Class I.	Armstrong, Helen D. H. Phillips, F. G. Mackness, Constance Crisford, Hilda N. M.
Class II.	Holt, Edith J. K. Wheeler, H. C. F. Fullerton, Lottie Kemp, Laura M. King
1903.	
Class I.	Waterhouse, E. G. Cole, P. R.
Class II.	Hope, P.
1904.	
Class I.	Allen, L. H. Skillen, Elizabeth } seq- Watts, P. R. 0338 }
1905.	
Class II.	Northcott, C. H. Coombes, A. J.

## HISTORY.

1896.  
 Class I.—Doust, Edith L. } seq.  
                   Yarnold, A. H. }  
                   Murray, Florence J.  
 Class III.—Foreman, H. J. C.  
 Class I.—Bloomfield, W. J.\*

1897.  
 Class I.—Chalmers, S. D.  
                   Monahan, W. W.  
 Class II.—Jones, C. H. F.

1898.  
 Class I.—Lance, Elisabeth A. }  
                   Pilcher, N. G. S. }  
 Class II.—Gordon, Emily I.  
 Class III.—Rossiter, Florence A.

1899.  
 Class I.—Teece, R. C.  
 Class II.—Read, Elizabeth J.

1900.  
 Class I.—Rutherford, Florence M.  
                   Scrutton, C. Maude  
                   Fell, Catherine I.  
 Class II.—Nolan, J. H. M.

1901.  
 Class I.—Mills, Elsie A. H.  
                   Jarrett, Marjorie K.  
 Class II.—Crawford, T. S.

1902.  
 Class I.—Teece, R. N.  
                   Mackness, Constance  
                   Fullerton, Lottie  
 Class II.—Reid, Violet M.

1903.  
 Class I.—Cole, P. R.  
                   Kemp, R. C. King

1904.  
 Class I.—Cramp, K. R.  
 Class II.—Maxwell, W.

1905.  
 Class I.—Paterson, J.  
                   Rogers, P. H.  
                   Northcott, C. H.

## MATHEMATICS.

1896.  
 Class I.—Stewart, D. G.  
                   Strickland, T. P. (Eng.)  
 Class II.—Swanwick, K. ff.  
 Class III.—Mitchell, E. M.

1897.  
 Class I.—Chalmers, S. D.

1898.  
 Class II.—Griffiths, F. G.  
 Class III.—Jarvie, B.

1899.  
 Class I.—Sawkins, D. T.  
                   Durack, J. J. E.  
                   Mathews, H. B.

1900.  
 Class II.—Stephen, H. M.

1902.  
 Class I.—Hawken, R. W. H.  
                   Smith, W.  
 Class II.—Tivey, J. P.

1903.  
 Class I.—Wellisch, E. M.  
                   Sharpe, G. F.

1904.  
 Class I.—Weatherburn, C. E.  
                   Brearley, E. A.  
 Class II.—Sutton, Mabel H.

1905.  
 Class I.—Barry, D. R.  
                   Skillman, Jessie } seq.  
                   Tomlinson, G. L. }  
 Class II.—Paul, A.

## LOGIC AND MENTAL PHILOSOPHY.

1896.		1901.	
Class I.—	Swanwick, K. ff. Taylor, Elizabeth I.	Class I.—	Bowmaker, Jessie Fry, F. Mildred } seq.
Class II.—	Bloomfield, W. J. Beardmore, Ada Davis, Agnes M. H. } seq.	Class II.—	Bruce, Grace M. Wilson, G. H.
1897.		Class III.—	Crawford, T. S.
Class I.—	Wallace, D. Whitfeld, H. E. Stephen, J. W. F.	1902.	
Class II.—	Broinowski, L. T.	Class I.—	Ferguson, J. A. Green, H. M.
1898.		Class II.—	Castleman, A. Brownlie, Eveline A.
Class I.—	Pilcher, N. G. S. De Lissa, Ethel N.	1903.	
Class II.—	Bavin, Gertrude L. Dumolo, Nona	Class I.—	Cole, P. R. Austin, A. H. Hope, P.
Class III.—	Edwards, E. E.	Class II.—	Grant, W. J. Stewart, J. R. Giles, J. H. P. McWilliam, N. G.
1899.		1904.	
Class I.—	Nicholson, G. G. Davies, Edith W Slack, Ida L.	Class I.—	Watts, P. R. Fry, Edith M.
Class II.—	Withycombe, E. J. Curtis, W. J. Lafferty, T. M.	Class II.—	Levick, A. M. Wheeler, A. R. Campbell, A. P. Spence, J.
Class III.—	Clipsam, Gertrude M. Turner, Annie E.	Class III.—	Goddard, T. H. Powell, J. W. G.
1900.		1905.	
Class I.—	Merrington, E. N.	Class I.—	Northcott, C. H. } seq. Paterson, J. Coombes, A. J.
Class II.—	Bailey, Margaret A. Binns, W. J.	Class II.—	Melville, H. P. Austin, Fanny M.
Class III.—	Gillam, Dora A. Sheridan, Muriel E. B.		

## GEOLOGY AND PALÆONTOLOGY.

1896.		1899.	
Class II.—	Montefiore, Hortense H. Brook, H. J. S. *Officer, C. G. W.	Class II.—	Lee, T. N.
1897.		1900.	
Class II.—	Langley, Isabella E.	Class I.—	Wilton, E. N.
1898.		1902.	
Class II.—	Heden, E. C. B. Potts, Cuthbert	Class II.—	Alexander, Maud M.
		1905.	
		Class II.—	Barry, D. R. Burfitt, Manie B. Wade, R. T.



## HONOURS.

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### BOTANY.

1893.  
Class I.—MacPherson, J.

1894.  
Class II.—Holmes, W. F.

### CHEMISTRY.

1894.  
Class II.—Blatchford, T.

1897.  
Class II.—Sharp, W. A. R.

### PHYSICS.

1899.  
Class I.—Durack, J. J. E

1902.  
Class II.—Tivey, J. P.



## FACULTY OF LAW.

## LL.B. EXAMINATION.

1896.  
 Class II.—Walker, J. E.  
                   Boyce, F. S.  
                   Kershaw, J. C.

1897.  
 Class I.—Bavin, T. R.

1898.  
 Class I.—Peden, J. B.  
 Class II.—Clines, P. J.  
                   Hammond, J. H.  
                   Parker, W. A.

1899.  
 Class II.—Waddell, G. W.  
                   Edwards, D. S.  
                   Bloomfield, W. J.

1900.  
 Class I.—Mitchell, E. M.  
 Class II.—Forsyth, W. G.

1901.  
 Class II.—Pilcher, N. G. S.  
                   Stacy, F. S.  
                   Clegg, W. C.  
                   Davidson, C. G. W.  
                   Tozer, S. D.

1903.  
 Class I.—Teece, R. C.  
 Class II.—Robson, R. N.  
                   Arnold, A. G. de L.  
                   Rogers, W. A. H.  
                   Stephen, H. M.

1904.  
 Class II.—Browne, J. A.  
                   Wilson, G. H.  
                   Vickery, E. F.

1905.  
 Class II.—Ferguson, J. A.  
                   Kemp, R. C. King  
                   Green, H. M.

## FACULTY OF MEDICINE.

## M.D. EXAMINATION.

1895.—Smith, G. E. (Anatomy).

1903.—Class I.—Sandes, F. P. (Surgery).

Blackburn, C. B. (Medicine).

1904.—Class II.—Hall, E. C. (Materia Medica and Therapeutics).

## M.B. EXAMINATION.

1896.

Class II.—Deck, G. H. B. }  
 Halliday, J. C. } æq.  
 McClelland, W. C.  
 Wade, R. B.  
 Conlon, W. A.

1897.

Class I.—Dixon, G. P.

Class II.—Pain, E. M.

1898.

Class I.—MacPherson, J.

Class II.—Hall, E. C.  
 Kater, N. W.  
 Throsby, H. Z.  
 Ellis, L. E.

1899.

Class II.—MacMaster, D.Æ.D. }  
 Blackburn, C. B. } æq.  
 Cargill, W. D.  
 Magarey, F. W. A. }

1900.

Class I.—Burfitt, W. F.

Class II.—McLean, G.

1901.

Class I.—Macintosh, A. H.

Class II.—Graham, Mabel J.  
 Barling, J. E. V.  
 Cox, H.

1902.

Class II.—Page, E. C. G.  
 Wallace, D.  
 Muscio, A.

1903.

Class II.—Dansey, St. J. W.  
 Hipsley, P. L.  
 Smith, S. A.  
 Mason, T. W. }  
 Davis, J. S. } æq.  
 Woolnough, R. E.  
 Plomley, M. J.  
 Suckling, F. M.

1904.

Class II.—Buchanan, G. A.  
 Browne, C. S.  
 Connolly, T. P.  
 Sharp, G. G.  
 Mawson, W.  
 D'Arcy, Constance E.

1905.

Class II.—Simpson, F. G. M.  
 Smith, P. E. W.  
 McKelvey, J. L.  
 O'Reilly, Susannah H.

## FACULTY OF SCIENCE.

## B.Sc. EXAMINATION.

## CHEMISTRY.

1899.	1901.
Class I.—Harker, G.	Class I.—Petrie, J. M.
	Class II.—Heden, E. C. B.

## GEOLOGY AND PALÆONTOLOGY.

1897.	1902.
Class I.—Horton, Marion C.	Class I.—*Verge, J.
	†Green, L. C.
1898.	1903.
Class I.—Woolnough, W. G.	Class I.—Taylor, T. G.
Poole, W.	Class II.—†Stone, W. G.
1899.	1904.
Class I.—Waterhouse, G. A.	Class I.—Jensen, H. I.
1901.	1905.
Class I.—Jordan, G. E. G. } seq.	Class I.—*Foxall, H. G.
Peterson, A. J.	
†Süssmilch, C. A.	

## MINERALOGY.

1894.	1903.
Class I.—Watt, J. A.	Class II.—Jensen, H. I.

## GEOLOGY AND MINERALOGY.

1901.	1905.
Class II.—Peterson, A. J. } seq.	Class I.—*Foxall, H. G. } seq.
Heden, E. C. B.	Mawson, D.
1902.	Gray, G. J.
Class I.—†Larcombe, C. O. G.	
*Verge, J.	

## PHYSICS.

1896.	1902.
Class II.—*Strickland, T. P.	Class I.—Vonwiller, O. U.
1900.	1903.
Class I.—Madsen, J. P. V.	Class I.—Close, J. C.
1901.	1904.
Class I.—Boyd, A.	Class II.—Taylor, T. G.
Weston, P. L.	1905.
Class II.—Mort, H. S.	Class I.—Mason, W. H.

\* Not passing through the regular course.

† Unmatriculated.

## HONOURS.

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### BIOLOGY.

<p style="text-align: center;">1897.</p> <p>Class I.—Horton, Marion C.</p> <p style="text-align: center;">1898.</p> <p>Class II.—Davis, Agnes M. H.</p>	<p style="text-align: center;">1901.</p> <p>Class II.—O'Reilly, Susannah H</p> <p style="text-align: center;">1902.</p> <p>Class II.—Johnston, S.J.; B.A.</p>
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### MATHEMATICS.

<p style="text-align: center;">1900.</p> <p>Class I.—Madsen, J. P. V.</p> <p style="text-align: center;">1901.</p> <p>Class II.—Mort, H. S. Boyd, A.</p> <p>Class III.—Weston, P. L.</p>	<p style="text-align: center;">1902.</p> <p>Class I.—Vonwiller, O. U.</p> <p style="text-align: center;">1903.</p> <p>Class II.—Close, J. C.</p> <p style="text-align: center;">1905.</p> <p>Class I.—Weatherburn, C. E.</p>
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## M.E. EXAMINATION.

### CIVIL ENGINEERING.

<p style="text-align: center;">1894.</p> <p>Class I.—Dare, H. H.</p>	<p style="text-align: center;">1896.</p> <p>Class I.—Bradfield, J. J. C.</p>
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## B.E. EXAMINATION.

### CIVIL ENGINEERING.

<p style="text-align: center;">1896.</p> <p>Class II.—Hole, W. F. Woore, J. M. S. *Hedgeland, E. W.</p> <p style="text-align: center;">1897.</p> <p>Class I.—Strickland, T. P.</p> <p>Class II.—Shortland, W. A. Smail, H. S. I.</p> <p style="text-align: center;">1898.</p> <p>Class II.—Boyd, R. J.</p> <p style="text-align: center;">1899.</p> <p>Class II.—Beaver, W. R. Mathison, W. C.</p>	<p style="text-align: center;">1900.</p> <p>Class II.—Hawken, R. W.</p> <p style="text-align: center;">1901.</p> <p>Class I.—Madsen, J. P. V. Myers, H. W.</p> <p style="text-align: center;">1902.</p> <p>Class I.—Boyd, A.</p> <p>Class II.—Corlette, J. M. C.</p> <p style="text-align: center;">1905.</p> <p>Class II.—Martyn, A. M. Smail, J. A. M.</p>
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### MINING AND METALLURGY.

<p style="text-align: center;">1895.</p> <p>Class II.—Simpson, E. S. Dixon, J. T.</p>	<p style="text-align: center;">1899.</p> <p>Class II.—Jack, R. L. Morris, J. F.</p> <p style="text-align: center;">1900.</p> <p>Class II.—Poole, W. Jackson, C. F. V.</p>
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\* Not passing through the regular course.

## MINING.

1901.		1902— <i>continued</i> .	
Class	I.—Newman, J. M. Boyd, W. S.	Class	II.—Williams, L. B. †Green, L. C. Thomas, D. Mawson, D. Gould, H. J.
Class	II.—Gorringe, L. S. *Horsburgh, J. Grut, C. F. de J.		
1902.		1903.	
Class	II.—Freeman, C. C. †Süssmilch, C. A. Cameron, C. B. Whitfeld, H. E. Heden, E. C. B.	Class	II.—Ward, L. K. Giblin, N. E. } <i>æq.</i> Peterson, A. J. Gray, G. J. Corlette, J. M. C.
1904.			
Class II.—Patterson, B. G.			
1905.			
Class II.—Stephen, J. F. Webb, S. D.			

## METALLURGY.

1901.		1903.	
Class	I.—Newman, J. M. *Harker, G. Boyd, W. S.	Class	I.—Ward, L. K.
Class	II.—Grut, C. F. de J. *Horsburgh, J.	Class	II.—Peterson, A. J. †Brereton, E. Le G. Gray, G. J. Corlette, J. M. C. †Süssmilch, C. A.
1902.		1904.	
Class	II.—Heden, E. C. B. Freeman, C. C. Gould, H. J. †Morson, W. J.	Class	I.—Shellshear, W. Saunders, G. J.
		Class	II.—Patterson, B. G. Hill, J. H. F. Barr, J.
1905.			
Class II.—Burgess, J. H. Taylor, T. G. Stephen, J. F. †Perry, E. A.			

## ASSAYING AND ORE TREATMENT.

1903.		1903.	
Class	I.—†Brereton, E. Le G. †Stoddart, R.	Class	II.—Giblin, N. E. Ward, L. K. } <i>æq.</i> Verge, J.

\* Not passing through the regular course.

† Unmatriculated.

ASSAYING AND ORE TREATMENT—*continued.*

1904.	1905.
Class II.—Saunders, G. J.	Class I.—Stephen, J. F.
Barr, J.	Class II.—Burgess, J. H.

## ELECTRICAL ENGINEERING.

1903.—\*Boyd, A.  
 1904.—Class I.—Weston, P. L.  
 Class II.—†Hall, R. V.

## MECHANICAL AND ELECTRICAL ENGINEERING.

1905.  
 Class I.—†Morris, L. C.  
 Class II.—Woodcock, L. R.

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\*Not passing through the regular course.

†Unmatriculated.

# MATRICULATION EXAMINATION.

HONOURS.

NOVEMBER, 1904.

COOPER SCHOLARSHIP No. II. FOR CLASSICS—S. Castlehow.  
 BARKER SCHOLARSHIP No. II. FOR MATHEMATICS—H. S. Utz.  
 HORNER EXHIBITION FOR MATHEMATICS—B. J. M. Harrison.  
 BOWMAN CAMERON SCHOLARSHIP FOR GENERAL PROFICIENCY—S. Castlehow.  
 FREEMASONS' SCHOLARSHIP FOR SONS OF FREEMASONS—H. S. Utz.  
 KAMBALA PRIZE FOR WOMEN—Fanny Cohen.  
 QUEEN VICTORIA SCHOLARSHIP FOR WOMEN—Lillian A. MacLean } seq.  
 Clara R. Smith }

LATIN.	GREEK.	FRENCH.
Class I.	Class I.	Class I.
Chapman, B. B. } seq.	Castlehow, S.	Perry, Irene F.
Castlehow, S. }	Smith, Clara R.	Chapman, B. B.
MacLean, Lillian A.	Chapman, B. B.	Malcolm, Olive M.
	Class II.	Brodziak, Birdie K.
Class II.	MacLean, Lillian A.	Bell, Mary P.
Utz, H. S.	Class III.	Cohen, Fanny
Archdall, H. K.	Archdall, H. K.	Williams, Emily M.
Harvey, H. L.	McGill, A. D.	
Smith, Clara R. }	Smith, Margaret W.	Class II.
Smith, Margaret W. } seq.	Leslie, N. }	Lion, Rosine
Hogan, P. J.	Harvey, H. L. } seq.	Mitchell, Clarice
	Dey, L. A.	Gourlay, Mary E. F. }
Class III.	Lentaigne, J. } seq.	Hill, Ida M. }
Mitchell, Clarice }	Barron, T. P. }	Archdall, H. K.
Perry, Irene F. }		Farran-Ridge, C.
Bateman, J. E. }	GERMAN.	Harrison, B. J. M.
MacGregor, D. N. }	Class I.	Smith, C. N. }
Brodziak, Birdie K. }	Class I.	Wall, W. T. S. } seq.
Farran-Ridge, C.	None.	Utz, H. S. }
Bell, Mary P. }	Class II.	Bateman, J. E. } seq.
Synan, Sarah D. } seq.	Hall, A. T.	Wardrop, R. D. }
Dey, L. A. }	Class III.	Handcock, C. L. M. }
Harrison, B. J. M. }	Macmillan-Brown,	Macmillan-Brown,
McGill, A. D.	Millicent A.	Millicent A.
Leslie, N. }	Campbell, Maggie	Sewell, L. G.
Cohen, Fanny } seq.		Waterhouse, L. V.
Wall, W. T. S. }		Wiles, Edith E.
		Webb, Clara I.



Class III.  
Hall, A. T.  
Dey, L. A.  
Browning, R. H.  
Taylor, W. J.  
Mort, J. L.  
Marsh, A. M.  
De Putron, Violet L.  
Alexander, Hilda M. }  
Campbell, Maggie }  
Cowdery, G. E. }  
Fraser, A. H. C.  
Brierley, F. S.  
Wilkins, T.  
Pittman, E. E.  
Boylan, J. }  
Lentaigne, J. } seq.

MATHEMATICS.  
Class I.  
Utz, H. S.  
Harrison, B. J. M.  
Bateman, J. E. }  
Vaughan, H. } seq.  
Cohen, Fanny }  
Lavarack, J. D. }  
Perry, Irene F. } seq.  
Walker, E. B. }  
Sewell, L. G.  
Hogan, P. J. }  
Waterford, W. E. } seq.  
Waterhouse, L. V.  
Class II.  
Browning, R. H.  
Boylan, J.  
Carter, E. M.

Wilkins, T.  
Rahman, H. W.  
Lane, G. T.  
Deffell, Alice H.  
Archdall, H. K.  
Fallon, C. J.  
Dey, L. A. }  
McCulloch, J. W. } seq.  
Class III.  
Alexander, Hilda M.  
Davidson, G. F.  
Shellshear, W. G.  
Burke, Nora  
Barron, T. P. }  
Laidley, W S.. } seq.  
Smith, C. N. }  
Thatcher, T. } seq.  
Handcock, C. L. M. }  
Ball, Mary P. }  
Farran-Ridge, C. }

MARCH, 1905.

PASS.

Anderson, Lily W. M.  
Anderson, Elinor F.  
Anderson, Edward S.  
Ardill, Katie  
Armstrong, Millicent S.  
H.  
Aspinall, A. M.  
Bankhead, Victoria  
Barlex, H. N. C.  
Bateman, J. E.  
Baxendale, J.  
Blaxland, F.  
Blumer, G. A.  
Booth, S.  
Borton, F. K.  
Bowman, Myril McD.  
Boylan, Margaret  
Brodziak, Birdie K.  
Brown, M. C.  
Bundock, H. C.  
Butler, Ella M.  
Byrne, G. C.  
Campbell, Maggie  
Carey, Johanna  
Carter, Ursula M.

Chapple, A. T.  
Clouston, Rachel  
Coatsworth, Kathleen B.  
Collins, Lillian  
Cook, Laura M.  
Crane, C. C.  
Croft, Edith  
Cusbert, A. H.  
Debenham, H.  
Deffell, Alice H.  
Densley, Lucy N.  
Dent, O. G.  
De Putron, Violet L.  
Desgrand, L.  
Dickson, Nora L.  
Douglas, G. A. C.  
Doyle, Elsie M.  
Duesbury, Elsie M. P.  
Edwards, H. G.  
Edwards, Marjorie  
Fenwick, A. H.  
Ferguson, Ethel V.  
Fielding, Una L.  
Fitz, Blanche  
Fitzpatrick, Mabel D.

Flower, Emily M.  
Forsyth, W.  
Forsyth, W. Stanley  
Fry, H. W.  
Gauld, A. H.  
Geer, Lilian E.  
Gombert, F.  
Grey, E. E.  
Grey, T. H.  
Grieve, Euphrosyn  
Hadfield, Ada A.  
Handcock-Burkitt, A.  
N. St. G.  
Harrison, B. J. M.  
Hayes, J. W.  
Henry, C.  
Herlihy, Kathleen M.  
Hicks, A. W.  
Hinder, T. C.  
Hodson, Susan A.  
Howard, G. C.  
Hudson, Lily I.  
Humphries, H. G.  
Hunt, W. E.  
Ives, Margaret

Jones, Myra I.	McKibbin, Rachel	Small, Ethel M.
Jopling, Joyce M.	McLennan, S.	Smith, C. A.
Kenny, F.	McMaster, W.	Smith, H. A. C.
Kesteven, H. L.	Newmarch, R. L.	Smith, Josephine E.
Lane, G. T.	Norrie, Lilias H.	Stafford, A. L.
Lauder, Lily J. D.	Olsen, J. M. S.	Stephen, J. N.
Laurence, R. L.	Pearce, W. H. S.	Stephens, Katherine W.
Leaver, J.	Peterson, V. W.	Stretch, J. C. W.
Lees, D.	Playoust, S. H. E.	Tarleton, A.
Light, Hilda V.	Pockley, F. G. A.	Taylor, W. J.
Lindeman, G.	Pocock, R. B.	Thomson, E. G.
Linton, C. C.	Poggioli, H. H.	Traill, A. C.
Lion, Rosine	Priestley, Louie	Traill, M. A.
Lodder, Nelly	Read, Emily M.	Vance, E. B. M.
Lovell, Mildred	Read, S. K.	Vickery, K. F.
Macintosh, H. V.	Richards, S. A.	Wall, W. T. S.
Malcolm, Olive M.	Reynolds, L. J.	Walker, J.
Marsh, Alison M.	Rich, E. H.	Watts, Ethel L.
Matheson, Minnie	Ritchie, F. L.	Webb, J. E.
Millett, W. L.	Roseby, Clara	Welch, H. L. St. Vincent
Mobbs, Mary E.	Ross, C. C.	Wheeler, J. S. N.
Moffitt, W. H.	Roughton, Doris M. A.	Whitney, A. H.
Moore, Olive V.	Ruse, B. B.	Whyte, H. W.
Morris, E. S.	Rutledge, T. L. F.	Wilkinson, W. J.
Morrison, Annie M.	Sharp, P. J.	Willington, Edith
Murphy, C. V.	Shellshear, W. G.	Woodlands, Mabel R.
Muscio, B.	Sherwin, T. A.	Wooster, F. C.
McDonald, A. C.	Short, F.	Wunderlich, E.
McElhone, F. E.	Simpson, R. I.	Young, A. G.
McIlwraith, W. B.	Sinclair, E. A.	
McKean, A.	Sinclair, G. W.	

## ENTRANCE EXAMINATION

FOR THE FACULTIES OF LAW, MEDICINE AND SCIENCE, AND THE  
DEPARTMENT OF ENGINEERING.

March, 1905.

PASS.

*Those whose names are marked with the letter (E) are qualified for admission to the  
Department of Engineering.*

Barton, A. S. D.	Luddy, J. J.	(E) Ranclaud, A. B.
Brierley, F. S.	(E) Gaden, K. B.	(E) Roger, R.
Brooks, W. S.	(E) McDonald, S. F.	(E) Stack, W. J.
(E) Coward, W. B.	(E) Macintosh, C. L. S.	(E) Storey, J. C.
(E) Cowdery, G. E.	Middleton, J.	Tait, G. L.
English, R. J.	Newton, A. J.	(E) Taylor, E. P.
Freeman, Margherita M.	Norrie, G.	(E) Tomkinson, W.
Hill, L. E.	(E) Parker, L. R.	(E) Waterhouse, L. L.
Little, Elaine M.	Paul, C. N.	(E) Wilkins, T.

# FACULTY OF ARTS.

## FIRST YEAR EXAMINATION.

December, 1904, and March, 1905.

COOPER SCHOLARSHIP No. III. FOR CLASSICS—B. J. M. Schleicher.  
F. M. McKeown, *prox. acc.*  
GEORGE ALLEN SCHOLARSHIP FOR MATHEMATICS—H. L. Watkins.  
GARTON SCHOLARSHIP No. I. FOR FRENCH AND GERMAN—Not awarded.  
UNIVERSITY PRIZE FOR PHYSIOGRAPHY—Dorothy R. Taylor.  
PROFESSOR MACCALLUM'S PRIZE FOR ENGLISH ESSAYS—Dorothy R. Taylor.  
SMITH PRIZE FOR PHYSICS—G. A. Sampson (Med.) } *æq.*  
H. L. Watkins }

### HONOUR LISTS.

LATIN.	JUNIOR FRENCH.	MATHEMATICS.
Class I.	Class I.	Class I.
McKeown, F. M.	Paxton, Grace	Watkins, H. L.
Schleicher, B. M. J.	Taylor, Dorothy R. } <i>æq.</i>	Carter, H. G. (Eng.) } <i>æq.</i>
Class II.	Class II.	Dennis, S. (Eng.) }
Booth, Irene M.	Brierley, Nina B.	Class II.
Jones, Grace E.	Sherring, Beatrice H. S.	Hammond, W. L. (Sci.)
	Martin, Laura M.	May, H. W. (Eng.)
GREEK.	Class III.	Class III.
Class I.	Maclardy, M. McL. St. C.	*Brown, J.
Schleicher, B. M. J.	Badman, Gladys E.	Clouston, Lavinia
McKeown, F. M.	Davis, Isabel R. H.	*Lynch, J.
Class II.	JUNIOR GERMAN.	Morris, A. C.
Jones, Grace E.	Class I.	
	Schenk, T. W. G. H.	

The following have completed the First Year Examination.

(Alphabetical)

Ascher, C. L.	†*Brown, J.	Culpin, Daisy E.
Ash, F. L.	Bruce, J. W.	David, Margaret E.
Badman, Gladys E.	†*Cantrell, S. W.	*Davies, E. S.
†*Bavin, L.	†*Chandler, H.	Davis, Isabel R. H.
Bedford, M. E.	Chard, J. P.	Deane, W.
Berge, C. G.	Clayton, H. J. R.	Deer, Margaret
*Berry, D. H.	Clouston Lavinia	Dibbs, L. B.
†*Blume, G.	*Cole, A. G.	Dixson, T. S.
Booth, Irene M.	*Cooper, D. M.	Dunlop, Mabel L.
Breakwell, E.	†*Cowie, H.	*Edwards, R. C.
Brierley, Nina B.	Crane, Bertha E.	Fidler, Ethelwyn

\* Evening Student.

† These students take chemistry in the Second Year under present teaching arrangements.

## First Year Examination—continued.

†*Fitzgerald, M.	†*McKean, L. J.	*Reynolds, A. J.
†Fitzhardinge, J. F. G.	McKeown, F. M.	*Rickard, J. C.
Fowler, C. W.	McLennan, W. M.	Robertson, W. E. K.
*Fox, Edith E.	Maclardy, M. McL. St. C.	Robinson, Katherine
French, B. R.	Marsh, H. T.	Robinson, Mabel H.
Frew, A. E. H.	Martin, Laura M.	Royle, J. McD.
Fry, Eva J.	Martin, R.	Russell-Jones, J.
*George, S.	Matthews, W. F.	Schenk, T. W. G. H.
Gibson, J. C.	Miller, H. R.	Schleicher, B. M. J.
Gordon, G. A.	Mills, A. J.	Schroder, Aphra F.
†*Gowing, E. N.	Minter, C.	Sherring, Beatrice A. S.
Greville, Minnie	*Mobbs, A. W.	Sherwood, Edith M.
Hamilton-Browne, E. I.	Molesworth, C. S.	Smithers, Ida M.
Hamilton, J. S.	†*Moore, H. E.	†*Sproule, R.
*Hampton, Adeline S.	Morris, A. C.	Stanton-Cook, Millicent I.
Harker, Mabel	Morrison, S. H.	Stewart, W. P.
Howard, Vera	Nathan, G. G.	†*Tarrant, T. A.
Howatson, G.	Nimmo, W. M.	†Taylor, Dorothy R.
*Hunt, A. F.	Noad, Emma A.	Teece, A. H.
Jackson, Elizabeth	North, F.	Thompson, W. B.
Jones, Grace E.	Oatley, F. D. W.	Waldron, G. D. K.
†*Laird, H. H.	*Page, R. A.	Wallach, Ettie
†Lee, Norah St. G.	Palmer, A. B.	Ward, Berthe R.
*Leroy, A. E.	Paxton, Grace	Watkins, H. L.
Lydall, J. F.	Philip, F. C.	Watson, L. G. H.
McBride, J.	Poulton, R. L.	*West, W. M.
*McDonald, W. A.	Ralston, A. W.	Willis, C. G.
*Mackanness, G.	Read, T. W. V.	Young, Hilda M.

## Order of Merit in Individual Subjects.

## ENGLISH.

Pass, December, 1904.

Scroder, Aphra F.	Nimmo, W. M.	Deane, W.
Booth, Irena M.	*Dick, Lily J.	Hamilton, J. S.
Hamilton-Browne, E. I.	Laird, H. H.	Martin, Laura M.
Taylor, Dorothy R.	Sproule, R.	Minter, C.
Jones, Grace E.	Ward, Berthe R.	Breakwell, E.
Culpin, Daisy E.	Philip, F. C.	Jackson, Elizabeth
Willis, C. G.	Ferguson, W. A.	McBryde, J.
Marsh, H. T.	Lynch, J.	*McKean, L. J.
McKeown, F. M.	Paxton, Grace	Pratt, Annie M.
Deer, Margaret	Howard, Vera	Blume, G.
Dunlop, Mabel L.	Badman, Gladys E.	Chandler, H.
Sherring, B. A. S.	Clouston, Lavinia	Fry, Eva J.
Watson, L. G. H.	*Cowie, H.	*Otton, D. K.
Schleicher, B. M. J.	Wallach, Ettie	Spencer, S. A.
*Berry, D. H.	Frew, A. E. H.	Watkins, H. L.
Fidler, Ethelwyn	French, B. R.	Bruce, J. W.
Moore, H. E.	Young, Hilda M.	Martin, R.

\* Evening Student.

† These students take chemistry in the Second Year under present teaching arrangements.

## English—continued.

*Leroy, A. E.	George, S.	Matthews, W. F.
*Tarrant, T. A. } æq.	Ralston, A. W. } æq.	Jones, R. J. E. V. } æq.
Brierley, Nina B.	Gowing, E. C.	Russell-Jones, J.
*Cantrell, S. W. } æq.	Ascher, C.	Dibbs, L. B.
*†Fortune, J.	Clayton, H. J. R.	Bedford, M. E.
Noad, Emma	*Brown, J.	Bland, H. S.
Harker, Mabel	*Crane, C. C. } æq.	Greville, Minnie
Schenk, T. W. G. H. } æq.	Gibson, J. C. } æq.	Robinson, Mabel H.
Stewart, W. P.	Gordon, G. A. } æq.	Poulton, R. L.
*Short, F.	*Swain, Edith M. M.	Howatson, G.
Fitzhardinge, J. F. } æq.	McDonald, W. A. } æq.	*†Edwards, H. G.
G.	Edwards, R. C.	*†Allan, L. J.
North, F.	Lydall, J. F.	Robinson, Katherine
Morrison, S. H. } æq.	Maclardy, Margt. } æq.	*†McMinn, W. M.
Palmer, A. B.	McI. St. C.	*Quirk, F. P.
*Rickard, J. C. } æq.	Thompson, W. B. } æq.	Royle, J. McD.

## Pass (alphabetical).

Ash, F. L.	*Fitzgerald, M.	†Myles, Anne K.
Chard, J. P.	*Giltinan, R.	Oatley, F. W. D.
*Cooper, D. M.	*Leavers, C. W.	Smithers, J. M.
Davis, Isabel R. H.	Mills, A. J.	Stanton-Cook, Milliot. I.
Dixon, T. S.	Morris, A. C.	Teece, A. H.

## Pass, March, 1903 (alphabetical).

Berge, C. G.	Fullerton, J. A.	Molesworth, C. S.
Bray, G. W.	*Hunt, A. F.	Nathan, G. G.
Crane, Bertha E.	Lee, Norah St. G.	Read, T. W. V.
David, Margaret E.	McLennan, W. M.	Robertson, W. E. K.
Ducker, N. G.	Magney, J.	Sherwood, Edith M.
Finley, C. A.	Miller, H. R.	Waldron, G. D. K.
Fowler, C. W.	*Mobbs, A. W.	*West, W. M.

## LATIN.

## Pass, December, 1904.

Willis, C. G.	Brierley, Nina B.	*Moore, H. E.
Scroder, Aphra F.	Russell-Jones, J.	*Reynolds, A. J.
Watkins, H. L.	*Chandler, H.	*†McIlwraith, W. } æq.
Marsh, H. S.	Fidler, Ethelwyn	Philip, F. C.
Nimmo, W. M.	*Cowie, H. } æq.	*Tarrant, T. A.
Sherring, Beatrice A. S.	*Davies, E. S. } æq.	Schwartz, F. C.
Taylor, Dorothy R.	*Quirk, F. P. } æq.	Matthews, W. F.
French, B. R. } æq.	Young, Hilda M.	*Mackaness, G.
Paxton, Grace } æq.	Ward, Berthe R.	Breakwell, E.
Noad, Emma A.	Martin, Laura M. } æq.	Culpin, Daisy E. } æq.
Minter, C.	Mills, A. J. } æq.	*Laird, H. H.
Badman, Gladys E.	Clouston, Lavinia	*Taylor, R. C.
Morris, A. C.	*Brown, J.	Bruce, J. W.
*Cole, A. G. } æq.	*Munro, J. P.	David, Margaret E. } æq.
Fry, Eva J. } æq.	Deer, Margaret	Morrison, S.

## Latin—continued.

McBryde, J.	Dibbs, L. B.	*Cantrell, S. W.
Fitzhardinge, J. F. G.	Stanton-Cook,	Thompson, W. B. } æq.
*Blume, G. } æq.	Millicent I. } æq.	Fowler, C. W. } æq.
*Sproule, R. } æq.	Jackson, Elizabeth } æq.	Ralston, A. W. } æq.
Martin, R.	Lydall, J. F.	Harker, Mabel
Ascher, C. L.	Rudder, L. B.	Maclardy, Margt. } æq.
Clayton, H. J. R. } æq.	*McDonald, W. } æq.	McI. St. C. }
Gordon, G. A. } æq.	*Mobbs, A. W. } æq.	Howatson, G.
George, S.	Davis, Isabel R. H.	Oatley, F. W. D.
Jones, R. J. E. V.	Schenk, T. G. W. H.	*Garnsey, H. } æq.
Watson, L. G. H.	Nathan, G. G. } æq.	*Harvey, R. F. } æq.
Palmer, A. B.	*Rickard, J. C. } æq.	*West, W. M.
*Hampton, Adeline S.	Bedford, M. E. } æq.	Greville, Minnie
Howard, Vera	Royle, J. McD. } æq.	Frew, A. E. H.
*Dick, Lily J.	Deane, W.	Fullerton, J. A.
Poulton, R. L.	Dixson, T. S.	Stewart, W. P.
Robinson, Katherine } æq.	Gibson, J. C. } æq.	
	Hamilton, J. S. } æq.	

## Pass, March, 1905 (alphabetical).

Ash, F. L.	*Fitzgerald, M.	*Page, R. A.
Berge, C. G.	*Fox, Edith E.	Read, T. W. V.
*Berry, D. H.	*Gowing, E. N.	Robertson, W. E. K.
Bray, G. W.	Hamilton-Browne, E. I.	Robinson, Mabel H.
Callaghan, A. A.	Lee, Norah St. G.	Sherwood, Edith M.
Chard, J. P.	*McKean, L. J.	Smithers, Ida M.
Crane, Bertha E.	McLennan, W. M.	Teece, A. H.
Ducker, N. G.	Miller, H. R.	Waldron, G. D. K.
Dunlop, Mabel L.	Molesworth, C. S.	Wallach, Ettie
*Edwards, R. C.	North, F.	

## GREEK (PRELIMINARY.)

## Pass, December, 1904.

Mills, A. J.	Deane, W.	Morrison, S. H.
Stewart, W. P.	*Bavin, L.	Watson, L. G. H.
Gibson, J. C.	Gordon, G. A.	Fitzhardinge, J. F. G.
North, F.		

## JUNIOR GERMAN.

## Pass, December, 1904.

Dunlop, Mabel L.	Berge, C. G.
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## Pass, March, 1905 (alphabetical).

Chard, J. P.	McLennan, W. M.
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## JUNIOR FRENCH.

## Pass, December, 1904.

Willis, C. G.	Eva J.	*Mackanness, G. } æq.
Marsh, H. T.	Scroder, Aphra F.	*Laird, H. H. }
*Davies, E. S.	*Cole, A. G.	*Tarrant, T. A.

## Junior French—continued.

*Monro, J. P.	Robinson, Katherine	Bedford, M. E.
Ward, Berthe R.	*Leroy, A. E.	*Edwards, R. C. } aeq.
*Chandler, H.	*Fitzgerald, M.	George, S.
Fidler, Ethelwyn } aeq.	Stanton-Cook, Millicent I.	Poulton, R. L.
Noad, Emma A.	*McKean, L. J.	Cosgrove, C.
Frew, A. E. H. } aeq.	Minter, C.	Hamilton-Browne, } aeq.
Nimmo, W. M.	Molesworth, C. S. } aeq.	Elizabeth I.
Moore, H. E.	*Cowie, H.	Jackson, Elizabeth
Watkins, H. L.	Oatley, F. W. D. } aeq.	Bruce, J. W.
Deer, Margaret	Nathan, G. G.	Howatson, G. } aeq.
Palmer, A. B.	Matthews, W. F.	Lee, Norah St. G.
McBryde, J.	*Berry, D. H.	Teece, A. H.
†*McIlwraith, W. D.	Robinson, Mabel H. } aeq.	Lydall, J. F.
Booth, Irena M.	Butler, Lillian	Crane, Bertha E.
Howard, Vera	Greville, Minnie } aeq.	West, W. M.
Philip, F. C.	Rudder, L. B.	*Blume, G.
Clouston, Lavinia	Wallach, Ettie } aeq.	*Sproule, R. S.
*Cantrell, S. W.	Hamilton, J. S.	*Page, R. A.
*Edwards, H. G.	Dibbs, L. B. } aeq.	Breakwell, E.
*Brown, J.	Pratt, Annie M.	Dixson, T. S.
French, B. R.	Clayton, H. J. R. } aeq.	Martin, R.
Culpin, Daisy E.	*Harvey, R. F.	Morris, A. C.
Young, Hilda M.	Schenk, T. W. G. H.	Ralston, A. W.
David, Margaret E.	Russell-Jones, J.	*Cooper, D. M.
*Reynolds, A. J.		

## JUNIOR FRENCH

Pass, March, 1905 (alphabetical).

Ash, F. L.	*Gowing, E. N.	Robertson, W. E. K.
Asher, C. L.	Harker, Mabel	Royle, J. McD.
Callaghan, A. A.	*Hunt, A. F.	Rudder, L. B.
Ducker, N. G.	*Leavers, C. W.	Sherwood, Edith M.
*Edwards, R. C.	*McDonald, W. A.	Smithers, Ida M.
Finley, C. A.	Miller, H. R.	Thompson, W. B.
Fowler, C. W.	Philip, F. C.	Waldron, G. D. K.
*Fox, Edith E.	Read, T. W. V.	

## MATHEMATICS.

Pass, December, 1904 (alphabetical).

Ascher, Clive	Chard, J. P.	Fowler, C. W.
Ash, F. L.	Clayton, H. J. R.	French, B. R.
Badman, Gladys E.	Culpin, Daisy E.	Frew, A. H. E.
Bedford, M. E.	Deane, W.	Fry, Eva J.
Berge, C. G.	Deer, Margaret	Gibson, J. C.
Booth, Irena M.	Dibbs, L. B.	Gordon, G. A.
Breakwell, E.	Dixson, T. S.	Greville, Minnie
Brierley, Nina B.	Dunlop, Mabel L.	Hamilton-Browne, E. I.
Bruce, J. W.	Fidler, Ethelwyn	Hamilton, J. S.
Butler, Lilian	Fitzhardinge, J. F. G.	Howard, Vera

\* Evening student. † Unmatriculated.

## Mathematics—continued.

Howatson, G.	Molesworth, G. S.	Russell-Jones, J.
Jackson, Elizabeth	Morrison, S. H.	Schenk, T. W. G. H.
Jones, Grace E.	Nimmo, W. M.	Schleicher, B. M. J.
Lee, Norah St. G.	Noad, Emma A.	Schwartz, F. C.
McBryde, J.	North, F.	Scroder, Aphra F.
McElhone, G. H.	Oatley, F. D. W.	Sherring, Beatrice A. S.
McKeown, F. M.	Palmer, A. B.	Stanton-Cook, Millicent I.
Maclardy, M. McL. St. C.	Paxton, Grace	Stewart, W. P.
Marsh, H. T.	Poulton, R. L.	Taylor, Dorothy R.
Martin, Laura M.	Pratt, Annie M.	Teece, A. H.
Martin, R.	Ralston, A. W.	Ward, Berthe R.
Matthews, W. F.	Robertson, W. E. K.	Watson, L. G. H.
Miller, H. R.	Robinson, Mabel H.	Willis, C. G.
Mills, A. J.	Royle, J. McD.	Young, Hilda M.
Minter, C.		

## Pass, March, 1905 (alphabetical).

Carruthers, E. S. W.	Jones, R. J. E. V.	Robinson, Katherine
Crane, Bertha E.	Lydall, J. F.	Sherwood, Edith M.
David, Margaret E.	Magney, J.	Smithers, Ida M.
Davis, Isabel R. H.	McLennan, W. M.	Thompson, W. B.
Ducker, N. G.	Nathan, G. G.	Waldron, G. D. K.
Gainford, G. Le B.	Philip, F. C.	Wallach, Ettie
Harker, Mabel	Read, T. W. V.	

## EVENING STUDENTS.

## Pass, December, 1904 (alphabetical).

†Allan, L. J.	†Ferguson, W. A.	†McMinn, W.
Bavin, L.	†Fortune, J.	Moore, H. E.
Blume, G.	Garnsey, H. T.	Short, F.
Cantrell, S. W.	George, S.	†Spencer, S. A.
Chandler, H.	Hampton, Adeline S.	Sproule, R.
Cowie, H.	Laird, H. H.	Swain, Edith M. M.
Crane, C. C.	Leavers, C. W.	Tarrant, T. A.
†Davis, A. P.	McDonald, W. A.	Taylor, R. C.
Edwards, R. C.	McKean, L. J.	West, W. M.

## Pass, March, 1905 (alphabetical).

Berry, D. H.	†Giltinan, R.	Otton, D. K.
Fitzgerald, M.	Gowing, E. N.	

## CHEMISTRY.

## Class Examination, May, 1904.

## Pass (Order of Merit).

Class I.	Class II.	
Deer, Margaret	Marsh, H. T.	Matthews, W. F.
Booth, Irena M.	Martin, Laura	Gordon, G. A.
Taylor, Dorothy R. } æq.	Badman, Gladys E.	Jones, Grace E.
Mills, A. J.	Deane, W.	Dunlop, Mabel L.
Morris, A. C.	Clouston, Lavinia	Poulton, R. L.
Schleicher, B. J. M.	Jackson, Elizabeth	Watson, L. G.
Sherring, Beatrice A. S.	Minter, C.	Palmer, A. B.
	McKeown, F. M. } æq.	Waterhouse, L. L.
	Watkins, H. L.	

† Unmatriculated.



Satisfied the conditions of By-laws, Chap. xv., Sec. 13.

Ash, F. L.	Fry, Eva J.	Oatley, F. D. W.
Balcombe, G.	Fullerton, J. A.	Paxton, Grace
Berge, C. G.	Gainford, G. Le B.	Philip, F. C.
Bland, H. S.	George, S.	Pratt, Annie M.
Blaxland, M. H.	Greene, Elsie G.	Read, T. W. V.
Breakwell, E.	Greville, Minnie	Robertson, N. K.
Bruce, J. W.	Hamilton, J. S.	Robinson, Katherine
Brierley, Nina B.	Hamilton-Browne,	Robinson, Mabel H.
*Callaghan, S. K.	Elizabeth I.	Royle, J. McD.
†Carment, D. S.	Harker, Mabel	Rudder, L. B.
Chard, J. P.	Howard, Vera	Russell-Jones, J.
Clayton, H. J. R.	Howatson, G.	Schenk, T. W. G. H.
Cosgrove, S.	Lee, Norah St. G.	Scroder, Aphra F.
Crane, Bertha E.	Lhoest, Elsie	Schwartz, F. C.
David, Margaret E.	Lydall, J. F.	Sherwood, Edith M.
Davis, Isabel R. H.	Maclardy, M. McI. St. C.	Smithers, Ida M.
Dibbs, L. B.	†McKean, A.	Stanton-Cook, Millicent
Dixson, T. S.	McLennan, W. M.	I.
Donkin, E. G.	Magney, J.	Stewart, W. P.
Ducker, N. G.	Martin, R.	Talbot, Ailsie
*Edwards, R. C.	Miller, H. R.	Teece, A. H.
Emanuel, F. C.	Molesworth, C. S.	Waldron, G. D. K.
Fidler, Ethelwyn	Morrison, S. H.	Wallach, Ettie
Finley, C. A.	Nathan, G. G.	Ward, Berthe R.
Fitzhardinge, J. G. F.	Nimmo, W. M.	Willis, C. G.
Fowler, C. W.	Noad, Emma A.	Young, Hilda M.
French, B. R.	North, F.	

PHYSICS.

Class Examination, October, 1904.

Pass.

Chard, J. P.	Stewart, W. P.	Watkins, H. L.
Davis, Isabel R. H.	Taylor, Dorothy R.	Willis, C. G.
*Fraser, G.		

Satisfied the conditions of By-laws, Chap. xv., Sec. 13.

Ash, F. L.	Davis, Isabel R. H.	Fry, Eva J.
Badman, Gladys E.	Deane, W.	Gainford, G. Le B.
Berge, C. G.	Deer, Margaret	Gordon, G. A.
Bland, H. S.	Dibbs, L. B.	Greene, Elsie G.
Booth, Irena M.	Dixson, T. S.	Greville, Minnie
Blaxland, M. H.	Donkin, E. G.	Hamilton, J. S.
Brierley, Nina B.	Ducker, N. G.	Hamilton-Browne, E. I.
Bruce, J. W.	Dunlop, Mabel L.	Harker, Mabel
Carruthers, E. S. W.	Edward, Jessie D.	Howard, Vera
Clayton, H. J. R.	Emanuel, F. C.	Howatson, G.
Clouston, Lavinia	Fidler, Ethelwyn	Jackson, Elizabeth
*Cooper, D. M.	Fitzhardinge, J. F. G.	Jones, Grace E.
Crane, Bertha E.	Fowler, C. W.	Lee, Norah St. G.
David, Margaret E.	French, B. R.	Lydall, J. F.

## Physics—continued.

McKeown, F. M.	Nimmo, W. M.	Schenk, T. W. G. H.
Maclardy, M. McL. St. C.	Noad, Emma A.	Schleicher, B. M. J.
McLennan, W. M.	North, F.	Scroder, Aphra F.
Magney, J.	Palmer, A. B.	Sherring, Beatrice A. S.
Marsh, H. T.	Paxton, Grace	Sherwood, Edith M.
Martin, Laura M.	Philip, F. C.	Smithers, Ida M.
Martin, R.	Poulton, R. L.	Stanton-Cook, Millit. I.
Matthews, W. F.	Pratt, Annie M.	Talbot, Ailsie
Miller, H. R.	Robertson, N. K.	Teece, A. H.
Mills, A. J.	Robinson, Katherine	Wallach, Ettie
Minter, C.	Robinson, Mabel H.	Ward, Berthe R.
Molesworth, C. S.	Royle, J. McD.	Waterhouse, L. L.
Morris, A. C.	Rudder, L. B.	Watson, L. G. H.
Morrison, S. H.	Russell-Jones, J.	Young, Hilda M.

## EVENING STUDENTS.

Pass, December, 1904.

(Order of Merit.)

Lynch, J.	Cotton, L. A.	West, W. M.
Walker, C. C. P. } æq.	Harvey, R. F.	Mackanness, G. } æq.
Tarrant, T. A. }	Davies, E. S.	Bavin, L. }

(Alphabetical)

†Allan, L. J.	Garnsey, H. T.	Otton, D. K.
Blume, G.	George, S.	Page, R. A.
Breakswell, F. C.	Giltinan, R.	Quirk, F. P.
Brown, J.	Gowing, E. N.	Reynolds, A. J.
Cantrell, S. W.	Hampton, Adeline	Rickard, J. C.
Chandler, H.	Hunt, A. F.	Rochester, H. R.
Coleman, E. A.	Laird, H. H.	Schwartz, F. C.
Collins, C. M.	Leavers, C. W.	Short, F.
Cowie, H.	Leroy, A. E.	Shortland, P. D.
Crane, C. C.	†McIlwraith, W. D.	†Spencer, S. A.
Dick, Lily	†McKean, A.	Spronle, R.
Easterbrook, J. E.	McKean, L. J.	Swain, Edith M.
Edwards, H. G.	†McMinn, W.	Taylor, R. C.
Edwards, R. C.	Middleton, R. J.	Toose, S. V.
Fitzgerald, M.	Mobbs, A. W.	Waring, H. R.
†Fortune, J.	Monro, J. P.	Watt, T. E.
Fox, Edith E.	Moore, H. E.	Williams, R. S.
Gale, C. A.	†Olsen, J. M. S.	

## PHYSIOGRAPHY.

Pass, December, 1904.

Taylor, Dorothy R.	†McIntyre, W. K. (Eng.)	Dennis, S. (Eng.)
Flynn, T. T. (Sci.)	Morris, A. C.	Mulligan, E. N. (Eng.)
Mackinnon, E. (Sci.)	May, H. W. (Eng.)	Blumer, G. A.
Dalyell, Elsie (Sci.)	Morrison, A. (Eng.)	Hudson, J. M. (Eng.)
Thompson, H. L. (Eng.)	Blume, Bertha E. (Sci.)	Armstrong, H. E. M.
*Cotton, L. A.	Walker, J. S. D. (Eng.)	Edgley, H. D. (Eng.)
Frees, Mary G. (Sci.)	Power, R. (Eng.)	Lane, J. B. (Eng.)
Carter, H. G. (Eng.)	White, H. F. (Eng.)	†Swain, H. J. (Eng.)

\* Evening Student.

† Unmatriculated.

Results of Class and Note-book Examinations in Physiography,  
November, 1904.

Passed with Distinction.

Taylor, Dorothy R.	Booth, Irena M.	} æq.	Watkins, H. L.
Hamilton Browne, E. I.	Jones, Grace E.		Crane, Bertha E.
Morris, A. C.	Sherring, Beatrice A. S.	} 2d	Hamilton, J. S.
Scroder, Aphra F.	Deer, Margaret		Jackson, Elizabeth
	Molesworth, C. S.		George, S.

Passed with Credit.

Brierley, Nina B.	Martin, Laura M.	} 2d
North, F.	Breakwell, E.	
Schwartz, F. C.	Chard, J. P.	
Clouston, Lavinia	Gainford, G. L. B.	
Deane, W.	Maclardy, M. St. C.	
Sherwood, Edith M.	Morrison, S. H.	
Teece, A. H.	Noad, Emma A.	
Pratt, Annie M.	Talbot, Ailsie	
Robinson, Katherine	Young, Hilda M.	
Schleicher, B. M. J.	Stanton-Cook, M. I.	

Pass.

Martin, R.	} 2d	Blaxland, M. H.	} 2d
David, Margaret E.		Clayton, H. J. R.	
Watson, L. G. H.		Dunlop, Mabel L.	
Fry, Eva J.		Finley, C. A.	
Philip, F. C.		Wallach, Ettie	
Berge, C. G.		Ash, F. L.	
French, B. R.		Marsh, H. T.	
Palmer, A. B.		Minter, C.	
Bruce, J. W.		Rudder, L. B.	
Dixson, T. S.		Miller, H. R.	
Badman, Gladys E.		Russell-Jones, J.	
Bland, H. S.		Greville, Minnie	
Davis, Isabel R. H.		Royle, J. McD.	
Harker, Mabel		Carruthers, E. S. W.	
Ducker, N. G.	} 2d	Fitzhardinge, J. F. G.	} 2d
Lydall, J. F.		Ward, Berthe R.	
Matthews, W. F.		McLennan, W. M.	
Nimmo, W. M.		Magney, J.	
Paxton, Grace		Mills, A. J.	
Schenk, T.W.G.H.		Cosgrove, C.	
		Fowler, C. W.	
		Smithers, Ida M.	

# FACULTY OF ARTS.

## SECOND YEAR EXAMINATION.

December, 1904, and March, 1905.

COOPER SCHOLARSHIP No. I. FOR CLASSICS—M. L. MacCallum.

BARKER SCHOLARSHIP No. I. AND NORBERT QUIRK PRIZE FOR MATHEMATICS—  
R. J. Lyons.

GARTON SCHOLARSHIP No. II. FOR FRENCH AND GERMAN—A. M. McIntosh.

DEAS-THOMSON SCHOLARSHIP FOR PHYSICS—S. G. Lusby.

PROFESSOR MACCALLUM'S PRIZE FOR ENGLISH ESSAYS—M. L. MacCallum.

PROFESSOR ANDERSON'S PRIZE FOR LOGIC AND MENTAL PHILOSOPHY—  
H. T. Lovell.

### HONOUR LISTS.

LATIN.	FRENCH.	Class III.
Class I.	Class I.	Bourne, Florence I.
MacCallum, M. L.	McIntosh, A. M.	Noake, S. C.
Class II.	Class II.	Roughton, Gladys M.
Clark, Marjorie D.	Lusby, S. G.	LOGIC AND MENTAL
Watson, Maria E.	Clark, Marjorie D.	PHILOSOPHY.
	Whitney, G. C.	Class I.
GREEK.	Class III.	*Lovell, H. T.
Class I.	McLean, A. L.	Whitney, G. C.
MacCallum, M. L.	PHYSICS.	Class II.
Class II.	(See under Faculty of	Portus, G. V.
Watson, Maria E.	Science).	Parsons, Florence L.
BIOLOGY.	GERMAN.	Laurie, W. S.
Class II.	Class I.	McLean, A. L.
Ewing, T.	McIntosh, A. M.	*Watt, T. E.
		*†Ross, J. Anderson
GEOLOGY.	MATHEMATICS.	HISTORY.
Class II.	Class I.	Class I.
†Cooley, Mary G.	Lyons, R. J.	None.
	*Cotton, L. A.	Class II.
ENGLISH.	Class II.	Whitney, G. C.
Class I.	Lusby, S. G.	Class III.
MacCallum, M. L.	McIntosh, A. M.	Leeson, Ida E.
Bellhouse, Constance	*Collins, C. M.	

\* Evening Student.

† Unmatriculated.

The following have completed the Second Year Examination (alphabetical).

*Anderson, Robert	Hertzberg, M.	Parsons, Florence L.
Bellhouse, Constance A.	Holden, Florence M.	*Penman, L. E.
*Bourke, J. O. A.	Hollingdale, B. A.	Portus, G. V.
Bourne, Florence I.	Hughes, J.	Redgrave, H. W.
Campbell, Florence E.	Jones, E. D. L.	Rhodes, Alice O. R.
Clark, Marjerie D.	Leeson, Ida E.	Roughton, Gladys M.
Coen, F.	Lennox, Edith	*Shortland, P. D.
*Coleman, E. A.	*Lovell, H. T.	Smith, Nellie M.
*Collins, C. M.	*Loxton, F. E.	*Smith, S. C.
*Cotton, L. A.	Lyons, R. J.	Sparling, Lilian G.
Davies, Isobel	Lusby, S. G.	*Toose, S. V.
Debenham, F.	MacCallum, M. L.	*Terry, F.
Debenham, Jessie	MacFarlane, Laurie M.	Walker, A. D.
*Easterbrook, I. E.	McIntosh, A. M.	*Walker, C. C. P.
Fitzhardinge, Julie G.	McKie, E. N.	*Waring, H. R.
*Fraser, G. E.	McLean, A. L.	Watson, Maria E.
Futter, V. S.	*Middleton, R. J.	*Watt, T. E.
*Gale, C. A.	Murray-Prior, Ruth A.	Webb, B. L.
Hall, Dorothy Vine	*Newton, R. G.	Whitney, G. C.
Hall, Florence S.	Noake, S. C.	*Williams, R. S.

Order of Merit in Individual Subjects.

ENGLISH.

Pass, December, 1904

Whitney, G. C.	*Terry, F.	Davies, Isobel
Clark, Marjorie D.	Fitzhardinge, Julie G.	Hughes, J. } æq.
Portus, G. V.	Webb, B. L.	Sparling, Lilian G.
MacIntosh, A. M.	Redgrave, H. W.	Hall, Florence S. } æq.
Jones, E. D. L.	Hollingdale, B. A.	Walker, A. D.
Watson, Maria E. } 5	Holden, Florence M.	Coen, F.
Leeson, Ida E. } 5	Debenham, Jessie	McKie, E. N.
Murray-Prior, Ruth A.	Debenham, F.	Smith, Nellie M.
Parsons, Florence L.	McLean, A. L.	Hall, Dorothy V.
Campbell, Florence E.	Futter, V. S.	*Penman, L. E.
*Williams, R. S.	*Newton, R. G. } æq.	
Lennox, Edith	Robertson, M. D. } æq.	

Pass, March, 1905.

*Easterbrook, J. E.	*Loxton, F. E.	Rhodes, Alice O. R.
King, C. A. Z.	MacFarlane, Laurie M.	Shortland, P. D.

LATIN.

Pass, December, 1904.

Noake, S. C.	Portus, G. V.	*Walker, C. C. P. } æq.
Hughes, J.	*Williams, R. S.	*Fraser, G. } æq.
*Lovell, H. T.	Lennox, Edith	Bellhouse, Constance A.
Davies, Isobel	Parsons, Florence L.	Sparling, Lilian G.
Hollingdale, B. A.	Bourne, Florence I.	Fitzhardinge, Julie G.
Redgrave, H. W. } 5	Coen, F.	*Bourke, J. O. A.
*Collins, C. M. } 5		Debenham, Jessie

\*Evening Student.

## Latin—continued.

Hertzberg, M.	*Shortland, P. D.	*Coleman, E. A.
Roughton, Gladys M.	Campbell, Florence E.	Rhodes, Alice O. R.
*Newton, R. G.	Holden, Florence M.	Hall, Dorothy V. } seq.
*Waring, H. R.	Smith, Nellie M.	Debenham, F. }
Walker, A. D.	Leeson, Ida E.	Edwards, Dorothea
*Middleton, R. J. } seq.	*Watt, T. E.	Ewing, Thomas
Hall, Florence S. }	*Anderson, R.	Futter, V. S.
McKie, E. N.		

Pass, March, 1905.

*Easterbrook, I. E.	MacFarlane, Laurie M.	Robertson, May D.
*Gale, C. A.	*Penman, L. E.	*Toose, S. V.

## GREEK (SENIOR).

Pass, December, 1904.

Bourne, Florence I.	Fitzhardinge, Julie G.
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## SENIOR FRENCH.

Pass, December, 1904.

*Lovell, H. T.	Hollingdale, B. A.	*Fraser, G. E.
Hughes, J. } seq.	*Collins, C. M.	Debenham, Jessie
*Smith, S. C. }	*Walker, C. C. P.	Davies, Isobel } seq.
Murray-Prior, Ruth A.	Leeson, Ida E.	Lennox, Edith }
Webb, B. L.	Sparling, Lilian G.	Noake, S. C.
Jones, E. D. L.	*Newton, R. G.	Hall, Florence S.
Parsons, Florence L.	Smith, Nellie M.	*Waring, H. R.
Roughton, Gladys M.	Campbell, Florence E.	*Watt, T. E.
Bellhouse, Constance A.	*Coleman, E. A.	Redgrave, H. W.
*Bourke, J. O. A.		

Pass, March, 1905.

Edwards, Dorothea	Hall, Dorothy V.	*Middleton, R. J.
*Gale, C. A.	Holden, Florence M.	Rhodes, Alice O. R.
Garnock, R. C. D.	MacFarlane, Laurie M.	*Toose, S. V.

## MATHEMATICS.

Pass, December, 1904.

*Bourke, J. O. A.	*Lovell, H. T.	Walker, C. C. P.
*Coleman, E. A.	*Middleton, R. J.	Webb, B. L.
*Gale, C. A.		

Pass, March, 1905.

McLean, A. L.

## SENIOR GERMAN.

Pass, December, 1904.

Hertzberg, M.

\* Evening Student.

## HISTORY.

Pass, December, 1904.

Portus, G. V.	Jones, E. D. L.	Hall, Florence S.
Bellhouse, Constance A.	Sparling, Lilian G.	MacFarlane, Laurie } $\frac{8}{8}$
Clark, Marjorie D.	Fitzhardinge, Julie G.	Walker, A. D.
Bourne, Florence I. } $\frac{8}{8}$	Campbell, F. E. } $\frac{8}{8}$	Hertzberg, M.
Debenham, F. } $\frac{8}{8}$	Watson, Maria E. } $\frac{8}{8}$	Edwards, Dorothea
† Watkins, G. M. L. } $\frac{8}{8}$	Smith, Nellie M. } $\frac{8}{8}$	Debenham, Jessie
Lennox, Edith } $\frac{8}{8}$	Futter, V. S. } $\frac{8}{8}$	Hughes, J.
Murray-Prior, Ruth A.		Coen, F.

Pass, March, 1905.

Hall, Dorothy V.	Rhodes, Alice O. R.	*Toose, S. V.
*Penman, L. E.	*Shortland, P. D.	*Waring, H. R.
Redgrave, H. W.		

## LOGIC AND MENTAL PHILOSOPHY.

Pass, December, 1904.

MacCallum, M. L.	*Fraser, G. E.	Holden, Florence M.
*Smith, S. C.	Davies, Isobel	*Terry, F.
*Williams R. S.	Noake, S. C.	Futter, V. S.
*Bourke, J. O. A.	Shortland, P. D.	*Gale, C. A.
Sands, W. G.	Garnock, R. C. D.	McKie, E. N.
Webb, B. L.	Hollingdale, B. A.	Walker, A. D.
Hertzberg, M.	*Toose, S. V.	*Easterbrook, I. E.
Coen, F.	Murray-Prior, Ruth A.	*Collins, C. M.
*Middleton, R. J.	*Penman, L. E.	Riley, E. A.
Jones, E. D. L.	*Coleman, E. A.	*Newton, R. G.
Debenham, F.	*Walker, C. C. P.	Roughton, Gladys M.

Pass, March, 1905.

*Anderson, R.	Robertson, May D.	*Waring, H. R.
*Loxton, F. E.	*Smith, C. P.	

## GEOLOGY.

Pass, December, 1904 (alphabetical).

Fraser, G. E.	Tietkins, Emily M.
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# FACULTY OF ARTS.

## THIRD YEAR EXAMINATION.

December, 1904, and March, 1905.

UNIVERSITY MEDAL FOR CLASSICS—Not awarded.

UNIVERSITY MEDAL FOR MATHEMATICS—Not awarded.

UNIVERSITY MEDAL FOR LOGIC AND MENTAL PHILOSOPHY—

C. H. Northcott }  
J. Paterson } æq.

FRAZER SCHOLARSHIP FOR HISTORY—J. Paterson.

P. H. Rogers, *prox. acc.*

PROFESSOR ANDERSON'S CLASS PRIZE FOR LOGIC AND MENTAL PHILOSOPHY—

C. H. Northcott }  
J. Paterson } æq.

### HONOUR LISTS.

LATIN.	FRENCH.	Class II.
Class I.	Class I.	Melville, H. P.
Henderson, R. G.	Armstrong, Clare A. C.	Austin, Fanny M.
Class II.	Class II.	
Rogers, P. H.	Graham, Frances	
Graham, Frances	Latreille, Meta G. } E. } æq.	
GREEK.	Class III.	MATHEMATICS.
Class I.	Austin, Fanny M.	Class I.
Paterson, J. } Rogers, P. H. } æq.	Haigh, V.	Barry, D. R. } Skillman, Jessie } æq.
Henderson, R. G.	GERMAN.	Tomlinson, G. L. }
	Class I.	Class II.
GEOLOGY AND	Armstrong, Clare A. C.	Paul, A.
PALÆONTOLOGY.		
(See under Faculty of	LOGIC AND MENTAL	HISTORY.
Science.)	PHILOSOPHY.	Class I.
ENGLISH.	Class I.	Paterson, J.
Class II.	Northcott, C. H. } Paterson, J. } æq.	Rogers, P. H.
Northcott, C. H.	*Coombes, A. J.	Northcott, C. H.
*Coombes, A. J.		

\* Evening Student.



The following have completed the Third Year Examination (alphabetical).

Askham, A. C.	Graham, Frances	Oakes, Florence I. M.
Armstrong, Clare A. C.	Haigh, V.	Paterson, J.
Austin, Fanny M.	*Harris, L. A.	Paul, A.
Barrow, I. M.	Henderson, R. G.	*Quinn, J. J.
Barry, D. R.	Henry, H.	Real, E. T.
Burfitt, Manie B.	*Johnston, T. H.	Redgrave, L. A.
*Callaghan, S. K.	La Douce, Felicie A.	Rogers, P. H.
*Coombes, A. J.	Latreille, Meta G. E.	Skillman, Jessie
Curren, Ethel	Manning, H. E.	Slack, Ella M.
Dawes, Madeleine M.	Markell, H. F.	Tebbutt, A. H.
Docker, W. B.	Melville, H. P.	Tomlinson, G. L.
Douglas, R. J.	Mott, Olive L.	*Townsend, S. E.
*Ebsworth, S. W.	Murray-Prior, R. S.	Wade, R. T.
Fox, Millicent	Northcott, C. H.	Waddy, E. F.

Order of Merit in Individual Subjects.

LATIN.

Pass, December, 1904.

Wade, R. T.	Haigh, V.	*Quinn, J. J.
Dawes, Madeleine M.	Burfitt, Manie B. } æq.	Markell, H. F.
La Douce, Felicie A.	Curren, Ethel M. } æq.	*Callaghan, S. K.
Slack, Ella M.	Mott, Olive L.	*Noake, A. R.
*Townsend, S. E.		

Pass, March, 1905.

Askham, A. C.	Oakes, Florence I. M.	Tebbutt, A. H.
Fox, Millicent	Redgrave, L. A.	*Tremlett, F. C. G.
Melville, H. P.		

FRENCH.

Pass, December, 1904.

La Douce, Felicie A.	Markell, H. F.	Mott, Olive L.
*Townsend, S. E.		

Pass, March, 1905.

Oakes, Florence I. M.	Redgrave, L. A.
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HISTORY.

Pass, December, 1904.

Graham, Frances	Slack, Ella M.	*Callaghan, S. K.
Dawes, Madeleine M.	Coombes, A. J.	*Easterbrook, I. E. (2nd Year)
*Williams, R. S. (2nd Year)	Douglas, R. J.	Waddy, E. F.
Docker, W. B.	Askham, A. C. } æq.	*Watt, T. E. (2nd Year) } æq.
Henry, H. } æq.	Melville, H. P.	

\* Evening Student.

## THIRD YEAR EXAMINATION IN ARTS.

## ENGLISH.

Pass, December, 1904.

Henderson, R. G.	Austin, Fanny M. }	Douglas, R. J
Armstrong, Clare A. C.	*Johnston, T. H. } seq.	Docker, W. B.
Barry, D. R.	Dawes, Madeleine M.	Waddy, E. F.
Slack, Ella M.	Mott, Olive L.	Curren, Ethel
Latreille, Meta G. E.	*Callaghan, S. K.	

Pass, March, 1905.

Fox, Millicent	Noake, A. R.	Redgrave, L. A.
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## LOGIC AND MENTAL PHILOSOPHY.

Pass, December, 1904.

Real, E. T.	Latreille, Meta G. E.	Waddy, E. F.
Manning, H. E.	Askham, A. C.	—
Docker, W. B.	Douglas, R. J.	*Townsend, S. E.
Haigh, V.	Murray-Prior, R. S.	*Tremlett, F. C. G.
Curren, Ethel	Fox, Millicent	*Ebsworth, S. W.

Pass, March, 1905.

*Barrow, I. M	*Harris, L. A.	*Moylan, W. P.
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## ZOOLOGY.

Pass, March, 1905.

Oakes, Florence I. M.

## GEOLOGY AND PALEONTOLOGY.

Pass, December, 1904.

La Douce, Felicie A.

## CHEMISTRY.

Pass, December, 1904.

Burfitt, Manie B.		Markell, H. F.
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# **FACULTY OF ARTS.**

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## **M.A. EXAMINATION.**

**March, 1903.**

### **SCHOOL OF CLASSICAL PHILOLOGY.**

**Pass (alphabetical).**

**McDowall, J. (Latin).**

**Smith, W. (Latin).**

**Wark, Florence H. (Latin).**

### **SCHOOL OF LOGIC, MORAL, MENTAL AND POLITICAL PHILOSOPHY.**

**Pass.**

**Fry, Florence M. (Ethics).**

***Thesis*—“The Dualism of Subject and Object.”**

**Riley, E. A. (Education).**

***Thesis*—“Self-activity as a Guiding Principle in Education.”**

### **SCHOOL OF MODERN HISTORY.**

**Honours.**

**Class II.**

**Murray, Florence Jane (Mrs. Armitage)**

**Class III.**

**Fullerton, Lottie (Mrs. Austin)**

### **SCHOOL OF MODERN LITERATURE.**

**ENGLISH LITERATURE.**

**Honours.**

**Class II.**

**Barnes, Pearl Ella.**

# FACULTY OF LAW.

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## INTERMEDIATE LL.B. EXAMINATION.

March, 1905.

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GEORGE AND MATILDA HARRIS SCHOLARSHIP FOR SECTION II.—N. de H.  
Rowland, B.A. *Prox. acc.* : R. N. Teece, M.A.

WIGRAM ALLEN SCHOLARSHIP FOR SECTION I.—E. T. Real  
F. R. Jordan, B.A. } *æq.*

PROFESSOR COBBETT'S PRIZE FOR THE ELEMENTS OF POLITICAL SCIENCE—  
R. N. Teece, M.A.

### SECTION I.

(ROMAN LAW AND CONSTITUTIONAL LAW.)

Real, E. T.	} <i>æq.</i>	Harris, L. A.	} <i>æq.</i>
Jordan, F. R., B.A.		Ebsworth, S. W.	
O'Grady, J. E.		Watts, P. R., B.A.	
Manning, H. E.		Murray-Prior, R. S.	
Henry, H.			
Wheeler, A. R., B.A.			
		Bonney, R. S., B.A.	
		Grove, F. T.	
		Makin, W., B.A.	
		O'Reilly, W. C., B.A.	
		Barrow, I. M.	
		Quinn, J. J.	

### SECTION II.

(INTERNATIONAL LAW, JURISPRUDENCE AND THE ELEMENTS OF  
POLITICAL SCIENCE.)

Rowland, N. de H., B.A.	Fisher, A. D., B.A.	Jaques, H. V., B.A.
Teece, R. N., M.A.	Beckenham, J. G., B.A.	McWilliam, N. G., B.A.
Wilson, D., M.A.	Artlett, W. L., B.A.	Brown, G. E., B.A.
Denham, H. K., B.A.	Merrick, J.	Murray, C. O'C., B.A.

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## FINAL LL.B. EXAMINATION.

March, 1905.

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Honours.

Class II.

Ferguson, J. A., B.A. | Kemp, R. C. King, B.A. | Green, H. M., B.A.

Pass.

Slade, O'C., B.A.	Watson, H. F., B.A.	Lindsay, W. C., B.A.
Hodge, S. T., B.A.	Sinclair, C. A., B.A.	Swanwick, K. ff., B.A.
Cohen, A. M., B.A.		

# FACULTY OF MEDICINE.

## FIRST YEAR EXAMINATION.

December, 1904.

RENWICK SCHOLARSHIP FOR GENERAL PROFICIENCY IN THE SUBJECTS OF THE EXAMINATION—G. A. Sampson.

PROFESSOR HASWELL'S PRIZE FOR ZOOLOGY (Class Examination)—

E. W. Ferguson.

PROFESSOR HASWELL'S PRIZE FOR ZOOLOGY (Laboratory Notes)—

Sophia R. Child }  
W. E. Grigor } æq.  
Ethel C. Parnell }

*Prox. acc.*—A. H. Tebbutt.

COLLIE PRIZE FOR BOTANY.—E. W. Ferguson.

SMITH PRIZE FOR PHYSICS—G. A. Sampson

H. L. Watkins (Arts) } æq.

Pass (alphabetical).

Allen, H. G.	Ferguson, E. W.	Sampson, G. A.
Bullock, H.	Fraser, D.	Sinclair, A. F.
Candlish, R. S., B.A.	Golledge, K. A.	Smith, G. K.
Carroll, W. J. S., B A.	Grigor, W. E.	Smith, K.
Coen, B. J.	Hill, D. B.	Stewart, C. P.
Crothers, C. A.	Hoets, J. W. van R.	Verge, C. A.
Docker, E. N. B.	Parkinson, H. H.	Waddy, R. G.
Fahy, J. F.	Patterson, M. S.	

### CLASS LISTS.

#### BIOLOGY.

##### Honours.

##### Class I.

Ferguson, E. W.

Sampson, G. A.

##### Class II.

Smith, K.

Golledge, K. A.

Waddy, R. G.

Hoets, J. W. van R.

#### CHEMISTRY.

##### Honours.

##### Class I.

Sampson, G. A.

Smith, K.

Ferguson, E. W.

Golledge, K. A.

##### Class II.

Parkinson, H.

Patterson, M. S.

Fahy, J. F.

Waddy, R. G.

Bullock, H.

Stewart, C. P. } æq.

Coen, B. J.

## FACULTY OF MEDICINE.

## PHYSICS.

## Honours.

*(See under Faculty of Science.)*

## DEFERRED EXAMINATION.

Pass, March, 1905.

Beazley, R. N.	Hughes, J.	Rogers, L. H.
Barron, G. N.	Johnston, H. H.	Smith, H. C. G.
Beeston, W. R.	Lyons, Ettie, B.A.	Stafford, H. L.
Body, E. E. I.	Mackenzie, D. S.	Talbot, Ethel
Child, Sophia R.	McKillop, L. M.	Tebbutt, A. H.
Croll, G.	McPhee, V. J.	Veech, M. S.
Ellard, W. C.	Parry, L. D.	Woodburn, J. J.
Groundwater, J. L.	Powell, J. W. G., B.A.	

Passed in Anatomy.

Roger, J. M.

Thompson, C. W.

## SECOND YEAR EXAMINATION.

## ORGANIC CHEMISTRY.

Pass (alphabetical).

Archdall, M.	Geddes, C. B.	Ritchie, H. J.
Bottrell, E. H.	Giblin, W. E.	Ramsdem, E. M.
Brearley, E. A.	Harris, H.	Rogers, F. C.
Brookes, G. A.	Heydon, G. A. M.	Rutherford, C. M.
Browne, Elsie F.	Larkins, N. C.	Stephens, F. G. N.
Collier, F. W. D., B.A.	MacFarlane, J. S.	Thompson, C. W.
Colvin, A. E.	Martin, H. J.	Tomlinson, G. L.
Dickinson, Evelyn E.	Matthews, H. D.	Verge, J., B.A.
Flecker, H.	Murray-Prior, Mabel	Weedon, C. J.
Fox, A. W.	Nathan, V. V.	Welch, K. St. Vincent
Furber, R. I.	O'Halloran, C. M.	

## THIRD YEAR EXAMINATION.

(Anatomy, Physiology, and Materia Medica and Therapeutics.)

December, 1904.

JOHN HARRIS SCHOLARSHIP FOR ANATOMY AND PHYSIOLOGY—H. R. G. Poate.

Passed with Distinction.

Poate, H. R. G.

Deakin, J. E. F.

Passed with Credit.

Shellshear, J. L.	Bradley, C. H. B.	Elwell, L. B.
Diethelm, O. A. A.	Schlink, H. H.	MacInnes, A., B.A. } 2
Edwards, J. G.	Pridham, H. E.	Stokes, F. O. }

## FACULTY OF MEDICINE.

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### Pass (alphabetical).

Binna, W. J., M.A.	Mackenzie, A. J.	Steele, A. B.
Chapman, H. O.	Moran, H. M.	Walker-Smith, H. B.
Craig, F.	Paul, G. A.	White, W. J.
Maher, C. W.	Rutledge, E. H.	Withers, O. E. B.
McClelland, R. E.	V. O. Stacy	

### DEFERRED EXAMINATION.

#### Pass, March, 1903.

Campbell, J. S., B.A.	Hutchinson, E. L.	Renwick, C. S.
Conolly, H. W.	Ormiston, Isabel M.	Vickers, W.
Gilchrist, J. J.		

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## FOURTH YEAR EXAMINATION.

(Pathology and Operative Surgery and Surgical Anatomy.)

December, 1904.

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### Passed with Distinction.

Parkinson, T. C.

### Passed with Credit.

Bell, G.	} seq.	Harris, S. H.	} seq.
Day, E. J.		McCulloch, H.T. C.	
Molesworth, E. H.		Quaife, W. H.	
		Palmer, C. R.	

### Pass (alphabetical).

Aspinall, A. J.	Harris, J. S.	O'Reilly, T. L.
Aspinall, Jessie S.	Harrison, E. S.	Parker, R. A.
Binney, Constance C.	Hill, J. G. W., B.A.	Sapsford, C. P.
Cahill, A. C.	Lightoller, G. H. S.	Welch, J. B. St. Vincent
Clifford, J. P.	McKillop, A.	Willis, C. St. L.
Day, E. J.	Miller, R. C.	Wherrett, E. A.
Donovan, H. C. E.	Moseley, A. H. C.	Wylie, Mary W.
Gibson, D. D.		

### DEFERRED EXAMINATION.

#### Pass, March, 1903.

Graham, D. H.	Harper, Margaret H.	Palmer, H. W.
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## FACULTY OF MEDICINE.

## FIFTH YEAR EXAMINATION.

Pass, June, 1904.

Chisholm, E. C.  
Perkins, R.

Phillips, A. B.

Vivers, G. A.

December, 1904.

Honours at Graduation (M.B. and Ch.M.).

Class I.—None.

Class II.

Simpson, F. G. M.  
Smith, P. E. W.

McKelvey, J. L.

O'Reilly, Susannah H.

## SUBJECTS OF THE FIFTH YEAR EXAMINATION.

December, 1904.

Passed with Credit.

Simpson, F. G. M.  
Power, J. W.McKelvey, J. L. } æq.  
Smith, P. E. W. }McDowall, V.  
Shellshear, C.

Pass (alphabetical).

Bligh, E. A. R.

Coen, J.

Finckh, A. E.

Goergs, K. R. W.

Holland, J. J.

Kay, S.

Leslie, J. R.

McEncroe, J. M.

O'Reilly, Susannah H.

Roberts, A. S. C.

Ure, Sarah L.

Verge, A.

Vernon, G. H.

Whiteman, R. J. N.

Young, E. H.

## M.D. EXAMINATION.

March, 1905.

SURGERY.

Pass.

Davis, J. S., M.B., Ch.M.

*Thesis*—"A contribution to the Anatomy of the Full-time Fœtus."



# FACULTY OF SCIENCE.

## FIRST YEAR EXAMINATION.

December, 1904.

LEVY SCHOLARSHIP FOR CHEMISTRY AND PHYSICS—C. J. White.

SLADE PRIZE FOR PRACTICAL PHYSICS—W. L. Hammond } seq.  
C. J. L. White }

The following have completed the First Year Examination.

Armstrong, Harriett E.	Free, Mary Grace	Mawson, D., B.E.
M.	Hammond, W. L.	Meldrum, H. J.
Blume, Bertha E.	Johnston, T. H.	Paul, A.
Dalyell, Elsie Jean	Mackinnon, E.	White, C. J. L.
Flynn, T. T.	Mason, W. H.	

### Class Lists in Individual Subjects.

BIOLOGY.	CHEMISTRY.
Honours.	Honours.
Class I.	Class I.
Flynn, T. T.	White, C. J. L.
Class II.	Flynn, J.
White, C. J. L.	Hammond, W. L.
Free, Mary G.	Class II.
PHYSICS.	Dalyell, Elsie
Honours.	Johnston, T. H. } seq.
Class II.	MacKinnon, E. }
White, C. J. L.	Free, Mary G.
Paul, A.	
Hammond, W. L.	CHEMISTRY.
Sampson, G. A. (Med.)	Pass.
May, H. W. (Eng.)	† Walton, S. G.
Ferguson, E. W. (Med.)	

## SECOND YEAR EXAMINATION.

December, 1904.

CAIRD SCHOLARSHIP FOR CHEMISTRY—H. Priestley.

The following have completed the Second Year Examination.

Dwyer, T. C.	Hallman, E. F.	Mawson, D., B.E.
Ewing, T.	Mason, W. H.	Priestley, H.

† Unmatriculated.

## Class Lists in Individual Subjects.

<b>GEOLOGY.</b> Honours. Class I. Atkinson, J. (Eng.) Dwyer, T. C. Bridge, J. (Eng.) Priestley, H.  Class II. Ewing, T. Futter, F. C. (Eng.)	<b>CHEMISTRY.</b> Honours. Class I. †Walton, S. G. Priestley, H.  Class II. Dwyer, T. C. Ewing, T.	<b>MATHEMATICS.</b> Pass. †Laby, T. H.  <b>PHYSICS.</b> Honours. Class I. Lusby, S. G. (Arts) Ewing, T.  Class II. Flashman, H. W. (Eng.) Jones, S. W. (Eng.) Sharp, L. H. (Eng.) Norman, J. L. (Eng.) Prescott, W. A. (Eng.)
	<b>CHEMISTRY.</b> Pass. †Challinor, R. W.	

## THIRD YEAR EXAMINATION.

December, 1904.

PROFESSOR DAVID'S PRIZE FOR GEOLOGY—H. G. Foxall.\*

The following have completed the Examination.

Gray, G. J., B.E.	Mason, W. H.	Weatherburn, C. E., B.A.
	Mawson, D., B.E.	

## Class Lists in Individual Subjects.

<b>GEOLOGY</b> (MINERALOGY AND PETROLOGY). Honours. Class I. *Foxall, H. G. Gray, G. J., B.E. } æq. Mawson, D., B.E. }	<b>CHEMISTRY.</b> Honours. Class II. Gray, G. J., B.E.  <b>PRACTICAL</b> <b>CHEMISTRY.</b> Pass. †Challinor, R. W.
<b>GEOLOGY</b> (PALÆONTOGY). Honours. Class I. *Foxall, H. G. Barry, D. R. (Arts) Burfitt, Manie B. (Arts) Wade, R. T. (Arts)	<b>MATHEMATICS.</b> Honours. Class I. Weatherburn, C.E., B.A. Pass. Mason, W. H.  <b>PHYSICS.</b> Honours. Class I. Mason, W. H.

\* Not passing through the regular course.

† Unmatriculated.

D.Sc. EXAMINATION.

CHEMISTRY.

Petrie, J. M., B.Sc. (Medal).

*Thesis*—"The Mineral Oil from the Torbanite of New South Wales."

PHYSICS.

Pollock, J. A., B.Sc. (Medal).

*Thesis*—"A Comparison of the Periods of the Electrical Vibrations associated with Simple Circuits."

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## DEPARTMENT OF ENGINEERING.

PETER NICOL RUSSELL SCHOLARSHIPS (THREE) FOR MECHANICAL AND ELECTRICAL  
ENGINEERING—G. B. Carleton, W. L. Ada, A. B. B. Ranclaud.

### FIRST YEAR EXAMINATION.

December, 1904, and March, 1905.

SLADE PRIZE FOR PRACTICAL CHEMISTRY—H. G. Carter }  
H. W. May } æq.

Pass, December, 1904.

Burnell, J. G.  
Carter, H. G.  
Cater, O. T.  
Dennis, S.

Edgley, H. D.  
May, H. W.  
Simpson, M. H.

Thompson, H. L.  
Walker, J. S. D.  
White, H. F.

Pass, March, 1905.

\*\*Barker, N. C.  
Bundock, A. W.  
\*\*Forrest, W. T.  
Hudson, J. M.  
\*\*Johnson, N. R.

†McIntyre, W. K.  
Morrison, A.  
\*\*Mulligan, E. N.  
Power, R.

Roberts, H. A.  
\*\*Roe, O. W.  
†Swain, H. J.  
\*\*Waugh, K. C.

#### Class Lists in Individual Subjects.

##### APPLIED MECHANICS.

Honours.

Class I.

Burnell, J. G.  
May, H. W.

Class II.

Carter, H. G.  
Power, R.

##### DESCRIPTIVE

##### GEOMETRY

Honours.

Class I.

Burnell, J. G.

Class II.

May, H. W.  
†Swain, H. J.

##### CHEMISTRY.

Honours.

Class I.

Carter, H. G.  
May, H. W.

Class II.

Burnell, J. G.  
Thompson, H. L. } æq.  
Walker, J. S. D.

### SECOND YEAR EXAMINATION.

December, 1904, and March, 1905:

DEAS-THOMSON SCHOLARSHIP FOR GEOLOGY—J. Atkinson.

PROFESSOR DAVID'S PRIZE FOR GEOLOGY—J. Atkinson.

PROFESSOR DAVID'S PRIZE FOR PRACTICAL PETROLOGY—E. A. Perry.†

† Unmatriculated.    \*\* Provisionally upon proceeding under the new curriculum.

## DEPARTMENT OF ENGINEERING.

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### DEPARTMENT OF MINING AND METALLURGY.

Pass, December, 1904.

Atkinson, J. Bridge, J. M.	Cropper, C. H.	MacMaster, C. F.
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Pass, March, 1905.

Coldham, J. C. Penman, A. P.	Skerritt, A. W.	Waine, V. J.
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### DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.

Pass, December, 1904.

Flashman, H. W. Jones, S. W.	Norman, J. L. Prescott, W. A.	Sharp, L. H. Tivey, J. P., B.A.
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Pass, March, 1905.

Larkins, H. M.

#### Class Lists in Individual Subjects.

MECHANICAL DRAWING AND DESIGN. (Mining) Honours. Class II. Bridge, J. M. Atkinson, J. (Mechanical and Electrical.) Honours. Class I. Norman, J. L. Sharp, L. H. Class II. Tivey, J. P., B.A.	PHYSICS. (See under Faculty of Science.)  GEOLOGY. (See under Faculty of Science.) March, 1905. Honours. Class II. †Perry, E. A.  CHEMISTRY. (Mining.) Honours. Class I. Atkinson, J.	Class II. Bridge, J. N. Futter, F. C.   APPLIED MECHANICS. Honours. Class I. Tivey, J. P., B.A. Bridge, J. M.  Class II. Norman, J. L. Jones, S. W. Prescott, W. A.
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## THIRD YEAR EXAMINATION.

December, 1904, and March, 1905.

### PROFESSOR LIVERSIDGE'S PRIZES FOR PRACTICAL METALLURGY AND ASSAYING—

Stephen, J. F.  
Burgess, J. H.

### DEPARTMENT OF CIVIL ENGINEERING.

Pass, December, 1904.

Smail, J. A. M.		Martyn, A. M.
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Pass, March, 1905.

Platt, C. P.

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†Unmatriculated.

## DEPARTMENT OF ENGINEERING.

## DEPARTMENT OF MINING AND METALLURGY.

Pass, December, 1904.

Boydell, W. G. B.	Nardin, C. C.	Skuthorpe, G.
Burgess, J. H.	Owen, T. M.	Stephen, J. F.
Campbell-Brown, G. F.	Rae, T. R.	Taylor, T. G., B.Sc.
Dight, A. H.	Reid, R. S.	Webb, S. D.
Garry, J. J. P.		

Pass, March, 1905.

Harris, H. T. R.

## DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.

Pass, December, 1904.

Bellemev, S. J.	Cowlishaw, R. G.	*Marriott, E. W.
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## Class Lists in Individual Subjects.

PRACTICAL METALLURGY AND ASSAYING. Honours. Class I. Stephen, J. F. Class II. Burgess, J. H.	MINING. Honours. Class II. Stephen, J. F. } seq. Webb, S. D. } MINING. Pass, December, 1904. †Futter, F. C. ENGINEERING DESIGN. (Mining.) Honours. Class I. Nardin, C. C. Class II. Burgess, J. H. (Mechanical and Electrical.) Honours. Class I. *Marriott, E. W.	PRACTICAL METALLURGY AND ASSAYING. Pass, December, 1904. *Gee, E. I. METALLURGY. Pass. *Gee, E. I. *Perry, E. A. CIVIL ENGINEERING. Honours. Class II. Martyn, A. M. Smail, J. A. M.
METALLURGY. Honours. Class II. Burgess, J. H. Taylor, T. G., B.Sc. Stephen, J. F. *Perry, E. A.		

## FOURTH YEAR EXAMINATION.

December, 1904.

## DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.

Honours.

Class I.  
\*Morris, L. C.Class II.  
Woodcock, L. R.

Pass.

Brooks, H. A.

\*Unmatriculated.

†Not passing through the regular course.

M.E. EXAMINATION.

March, 1905.

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HYDRAULIC ENGINEERING.

Pass.

MacTaggart, J. N. C., B.E.

*Thesis*—"The available water derivable from Catchment Areas; the loss and reasons for such loss."

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# SCHOOL OF DENTISTRY.

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## FIRST YEAR EXAMINATION.

Pass, December, 1904 (alphabetical):

Gattenhof, W. V.	Lane, A. P. R.	Moore, E. J.
Grant, William, M.B.		

Pass, March, 1905.

Hicks, H. F.

Class Lists in Individual Subjects.

### CHEMISTRY.

Honours.

Class I.

Lane, A. P. R.		Gattenhof, W. V.
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## SECOND YEAR EXAMINATION.

Pass, December, 1904 (alphabetical).

Broughton, F. W. W.	Love, W. A.	Punch, J. S.
Deck, N. C.	Marshall, W. H.	Riley, E. B.
Grosve, E. H.	Pridham, E.	Starkey, W. A.

Pass, March, 1905.

Burne, A. D.	Capper, L. H.	Kirchner, E. R.
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## THIRD YEAR EXAMINATION.

(L.D.S.)

Pass, December, 1904 (alphabetical).

Barnes, Margaret E.	Burkitt, C. T.	Moxham, C. G.
Bond, H. H.	Clark, J. J.	Neale, J. H.
Boys, R. S.	Hardie, H. G.	Starkey, J. N.



# PHARMACY STUDENTS.

## CHEMISTRY— INTRODUCTORY.

December, 1904.  
Passed with High  
Distinction.

Howard, R. J.

Passed with Distinction.

Roper, A. E.  
Dinsmore, G. A. R.

Pass.

Williams, L. B.  
Holloway, E. S.  
Mooy, F.  
Short, A. G.  
Emert, F. W.  
Ballhausen, L. W.  
Ritchie, O. J.  
Arnott, D. M.

Sleeman, J. E.  
Renwick, H. R. } æq.  
Davies, S. J.

Oxenham, N.  
Campbell, G.  
Burgess, T. M. } æq.  
Walker, J. B.

West, F. V.  
Carroll, A. S.  
Stewart, T. R. } æq.  
Pope, R. H.

Rose, H. } æq.  
Scott, R. G.

## CHEMISTRY—METALS.

December, 1904.

Passed with Distinction.

Edye, B. T.

Passed with Credit.

Roper, A. E.  
Greentree, A. G.

Pass.

Dinsmore, G. A. R.  
Benjamin, M. S.  
Archer, W. J.  
Lunney, W.  
Mooy, F.  
Holloway, E. S.  
Williams, L. B.

Pass, March, 1905.

Howard, R. J.  
Jensen, F. J.  
Mitchell, F. M.

## ORGANIC CHEMISTRY.

June, 1904.

Passed with High  
Distinction.

Edye, B. T.

Passed with Credit.

Howard, R. J.

Pass.

Jensen, F. J.  
Probert, C. K.  
Emert, F. W.

December, 1904.

Passed with High  
Distinction.

Greentree, A. G.  
Archer, W. J.

Passed with Credit.

Lunney, W.

Pass.

Roper, A. E.  
Evans, S. H.  
Campbell, A. McL. } æq.  
Self, E.  
Williams, L. B.  
Ritchie, O. J.  
Dinsmore, G. A. R.  
Burgess, T. M.  
Campbell, G. } æq.  
Arnott, D. M.  
West, F. V.

Pass, March, 1905.

Holloway, E. S.  
Mitchell, F. M.

**CHEMISTRY—  
PRACTICAL.**

**December, 1904.**

**Passed with Distinction.**

Howard, R. J.  
Roper, A. E.

**Passed with Credit.**

Benjamin, M. S.

**Pass.**

Scott, R. G.  
Dinsmore, G. A. R.  
Arnott, D. M.  
Burgess, T. M. } æq.  
Carroll, A. S. }  
Holloway, E. S. }  
Jensen, F. J. }  
Mooy, F. }  
Ritchie, O. J. }  
Short, A. G. }  
West, F. V. }  
Williams, L. B. }  
George, S. J. }

**Pass, March, 1905.**

Hewlett, L. E.

**BOTANY.**

**August, 1904.**

**Passed with Credit.**

Edye, B. T.

**Pass (alphabetical).**

Greentree, A. G.  
Mackenzie, —  
Roper, A. E.

**December, 1904.**

**Passed with Credit.**

Howard, R. J.

**Pass.**

Schofield, E. E. C.

**Pass, March, 1905.**

Campbell, G.  
Dinsmore, G. A. R.

**MATERIA MEDICA.**

**Passed with Distinction.**

Archer, W. J.  
Roper, A. E.

**Pass.**

Benjamin, M. }  
Howard, R. J. } æq.  
Emert, R. W. }  
Dinsmore, G. A. R. }  
Holloway, E. S. }  
Williams, L. B. }

**December, 1904.**

Jensen, F. J.  
Mooy, F.  
Rowe, C. C.

## UNIVERSITY OFFICERS, ETC.

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### VISITOR.

The Governor of New South Wales for the time being is *ex officio* Visitor to the University.

\*1850.—His Excellency Sir Charles Augustus Fitz Roy, K.C.B., K.H.

1855.—His Excellency Sir Thomas William Denison, K.C.B.

1861.—His Excellency the Right Hon. Sir John Young, Bart., K.C.B., G.C.M.G.

1868.—His Excellency the Right Hon. the Earl of Belmore, M.A.

1872.—His Excellency Sir Hercules George Robert Robinson, G.C.M.G.

1879.—His Excellency the Right Hon. Lord Augustus W. Loftus, M.A., G.C.B.

1886.—His Excellency the Right Hon. Charles Robert Baron Carrington, P.C., G.C.M.G.

1891.—His Excellency the Right Hon. Victor Albert George Child Villiers, Earl of Jersey, G.C.M.G.

1893.—His Excellency the Right Hon. Sir Robert William Duff, P.C., G.C.M.G.

1895.—His Excellency the Right Hon. Henry Robert, Viscount Hampden.

1899.—His Excellency the Right Hon. William Lygon, Earl Beauchamp, K.C.M.G.

1902.—His Excellency Vice-Admiral Sir Harry Holdsworth Rawson, K.C.B.

At the Commemorations in 1872 and 1879, Sir Alfred Stephen, G.C.M.G. and C.B., administering the Government, presided as Visitor. At the Commemorations in 1893, 1895, 1899, Sir Frederick Darley, Kt., C.J., administering the Government, presided as Visitor.

### CHANCELLOR.

The Chancellor is elected by the Fellows of the Senate out of their own body, for such period as the Senate may from time to time appoint. The period is at present limited by By-law to three years, but the retiring Chancellor is declared to be eligible for re-election.

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\* The dates prefixed to the names of Office Holders refer to their first appointment or entrance upon office.

- 1851.—Edward Hamilton, M.A.  
 1854.—Sir Charles Nicholson, Bart., M.D., D.C.L., LL.D.  
 1862.—The Hon. Francis Lewis Shaw Merewether, B.A.  
 1865.—The Hon. Sir Edward Deas-Thomson, C.B., K.C.M.G.  
 1878.—The Hon. Sir W. M. Manning, Kt., K.C.M.G., LL.D.  
 1895.—The Hon. Sir Wm. Chas. Windeyer, Kt., M.A., LL.D.  
 1896.—The Hon. Sir Henry Normand MacLaurin, Kt., M.A., M.D., LL.D.

## VICE-CHANCELLOR.

The Vice-Chancellor is annually elected by the Fellows of the Senate out of their own body.

- 1851.—Sir Charles Nicholson, Bart., M.D., D.C.L., LL.D.  
 1854.—The Hon. F. L. S. Merewether, B.A.  
 1862.—The Hon. Edward Deas-Thomson, C.B.  
 1865.—The Hon. J. H. Plunkett, B.A.  
 1869.—The Rev. Canon Allwood, B.A.  
 1883.—The Hon. Mr. Justice Windeyer, M.A., LL.D.  
 1887.—The Hon. Hy. Normand MacLaurin, M.A., M.D., LL.D.  
 1889.—The Hon. Arthur Renwick, B.A., M.D.  
 1891.—Henry Chamberlaine Russell, B.A., C.M.G., F.R.S.  
 \* The Hon. Arthur Renwick, B.A., M.D.  
 1892.—The Hon. Arthur Renwick, B.A., M.D.  
 † His Honour Judge Backhouse, M.A.  
 1893.—His Honour Judge Backhouse, M.A.  
 1895.—The Hon. Hy. Normand MacLaurin, M.A., M.D., LL.D.  
 1896.—His Honour Judge Backhouse, M.A.  
 1900.—The Hon. Sir Arthur Renwick, Kt., B.A., M.D.  
 1902.—The Hon. Mr. Justice A. H. Simpson, M.A.  
 1904.—Philip Sydney Jones, M.D.

## THE SENATE.

The original Senate was appointed by Proclamation on the 24th of December, 1850, under the Act of Incorporation, and consisted of the following :—

The Rev. William Binnington Boyce	Francis Lewis Shaw Merewether, Esq.
Edward Broadhurst, Esq.	Charles Nicholson, Esq.
John Bayley Darvall, Esq.	Bartholomew O'Brien, Esq.
Stuart Alexander Donaldson, Esq.	The Hon. John Hubert Plunkett, Esq.
The Right Rev. Charles Henry Davis	The Rev. William Purves
Alfred Denison, Esq.	His Honour Roger Therry, Esq.
Edward Hamilton, Esq.	The Hon. Edward Deas-Thomson, Esq.
James Macarthur, Esq.	William Charles Wentworth, Esq.

\* Mr. Russell having retired during his year of office, the Hon. Dr. Renwick was elected in his place for the remainder of the year.

† The Hon. Dr. Renwick having retired during his year of office, Judge Backhouse was elected in his place for the remainder of the year.

Under the original Incorporation Act, the election to vacant Fellowships was vested in the Senate until there should be one hundred Graduates holding the Degree of M.A., LL.D., or M.D. By an Act passed in 1861, the election to vacancies was vested in Fellows of the Senate, Professors and other Public Teachers of the University, Examiners, Principals of Incorporated Colleges within the University, Superior Officers declared to be such by By-law, and Graduates who should have taken any or either of the Degrees of M.A., LL.D., or M.D. By an Act passed in 1881, the privilege of voting at such elections was extended to Bachelors of Arts of three years' standing, and by the University Extension Act of 1884 the privilege was further extended to all Bachelors of three years' standing. In addition to the sixteen Fellows, it was provided by the Act of 1861 that there should not be fewer than three, nor more than six, *ex officio* Members of the Senate being Professors of the University in such branches of learning as the Senate might by any By-law select. The provisions of the abovementioned Acts are incorporated in the University and University Colleges Act of 1900.

## EX-MEMBERS OF THE SENATE.

- 1850-1854—Hamilton, Edward, M.A.
- 1850-1855—Davis, the Right Rev. C. H., D.D.
- 1850-1856—Broadhurst, the Hon. Edward, B.A.
- 1850-1859—Boyce, the Rev. W. B.
- 1850-1859—Therry, His Honour Sir Roger
- 1850-1860—Macarthur, the Hon. James
- 1850-1860—Denison, Alfred, B.A.
- 1850-1861—Donaldson, the Hon. Sir Stuart A.
- 1857-1861—Cooper, Sir Daniel, Bart., G.C.M.G.
- 1853-1865—Douglass, Henry Grattan, M.D.
- 1861-1866—Woolley, the Rev. J., D.C.L. (Principal) (*ex officio*)
- 1850-1868—Darvall, Sir John Bayley, M.A.
- 1850-1869—O'Brien, Bartholomew, M.D.
- 1850-1869—Plunkett, the Hon. John Hubert, B.A.
- 1850-1870—Purves, Rev. W., M.A.
- 1850-1872—Wentworth, the Hon. William Charles
- 1868-1872—Nathan, Charles, M.D.
- 1869-1873—Stenhouse, N. D., M.A.
- 1868-1874—Arnold, the Hon. William M.
- 1850-1875—Merewether, the Hon. F. L. S., B.A.
- 1856-1877—Polding, the Most Rev. Archbishop, D.D.
- 1859-1878—Allen, the Hon. George
- 1873-1878—Dalley, the Right Hon. William Bede, P.C.
- 1858-1878—Martin, the Hon. Sir James, Chief Justice
- 1861-1879—Pell, Professor Morris Birkbeck, B.A. (*ex officio*)
- 1860-1879—Deas-Thomson, the Hon. Sir E., C.B., K.C.M.G.
- 1860-1880—Macarthur, the Hon. Sir William

- 1872-1882—Forster, the Hon. William  
 1850-1883—Nicholson, Sir Charles, Bart., D.C.L., M.D., LL.D.  
 1867-1884—Badham, Professor Charles, D.D. (*ex officio*)  
 1861-1885—Smith, the Hon. Professor, M.D., LL.D., C.M.G. (*ex officio*)  
 1877-1885—Allen, the Hon. Sir George Wigram, K.C.M.G.  
 1885-1886—Martin, the Hon. Sir James, Chief Justice  
 1855-1886—Allwood, Rev. Canon Robert, B.A.  
 1879-1887—Darley, the Hon. Sir F. M., B.A., Chief Justice  
 1878-1887—Stephen, the Rt. Hon. Sir Alfred, C.B., G.C.M.G., C.J., P.C.  
 1887-1888—Knox, George, M.A.  
 1872-1888—Rolleston, Christopher, C.M.G.  
 1880-1889—Barton, the Hon. Edmund, M.A.  
 1886-1889—Barry, the Most Rev. Alfred, D.D., LL.D.  
 1884-1890—Stephens, Professor W. J., M.A. (*ex officio*)  
 1883-1891—Jennings, the Hon. Sir Patrick A., LL.D., K.C.M.G.  
 1875-1891—Macleay, the Hon. Sir William, Kt.  
 1870-1892—Hay, the Hon. Sir John, M.A., K.C.M.G.  
 1877-1892—Gurney, Professor Theodore T., M.A. (*ex officio*)  
 1891-1892—O'Connor, the Hon. Richard Edward, M.A.  
 1859-1894—Faucett, the Hon. Peter, B.A.  
 1885-1894—Scott, Professor Walter, M.A. (*ex officio*)  
 1861-1895—Manning, the Hon. Sir Wm. Montagu, Kt., LL.D., K.C.M.G.  
 1892-1896—Manning, the Hon. Mr. Justice Charles J., M.A.  
 1894-1896—Gurney, Professor Theodore T., M.A. (*ex officio*)  
 1866-1897—Windeyer, the Hon. Sir William Charles, Kt., M.A., LL.D.  
 1896-1898—Scott, Professor Walter, M.A. (*ex officio*)  
 1879-1904—Liversidge, Professor Archibald, M.A., LL.D., F.R.S.  
 1879-1904—Oliver, His Honour Alexander, M.A.

## PRESENT SENATE.

- 1895—Anderson, Henry Charles Lennox, M.A.  
 1887—Backhouse, His Honour Judge Alfred Paxton, M.A.  
 1892—Barton, the Right Hon. Sir Edmund, G.C.M.G., M.A., LL.D., D.C.L., P.C.  
 1888—Butler, Professor Thomas, B.A.  
 1890—Cobbett, Professor Pitt, M.A., D.C.L., Dean of the Faculty of Law (*ex officio*).  
 1896—Cullen, the Hon. William Portus, M.A., LL.D., K.C., Acting Dean of the Faculty of Law.  
 1904—David, Professor T. W. Edgeworth, Dean of the Faculty of Science (*ex officio*).  
 1904—Griffith, the Right Hon. Sir Samuel Walker, G.C.M.G., M.A., P.C., Chief Justice of the High Court of Australia.  
 1887—Jones, Philip Sydney, M.D., Vice-Chancellor.  
 1894—Knox, Edward William.  
 1898—MacCallum, Professor Mungo W., M.A., Dean of the Faculty of Arts (*ex officio*).

- 1883—MacLaurin, the Hon. Sir Henry Normand, Kt., M.A., M.D., LL.D. (St. And. and Edin.), Chancellor.  
 1893—O'Connor, the Hon. Mr. Justice Richard Edward, M.A.  
 1877—Renwick, the Hon. Sir Arthur, Kt., B.A., M.D.  
 1889—Rogers, His Honour Judge Francis E., M.A., LL.B.  
 1875—Russell, Henry C., C.M.G., B.A., F.R.S.  
 1897—Simpson, The Hon. Mr. Justice Archibald Henry, M.A.  
 1888—Stephen, Cecil Bedford, M.A.  
 1883—Stuart, Professor T. P. Anderson, M.D., LL.D., Dean of the Faculty of Medicine (*ex officio*)  
 1889—Teece, Richard, F.I.A., F.F.A.

## EX-PROFESSORS.

- CLASSICS AND LOGIC.—1852-1866—Woolley, the Rev. John, D.C.L.; 1867-1883—Badham, Rev. Charles, D.D.  
 GEOLOGY AND MINERALOGY.—1870-1872—Thomson, Alexander M., D.Sc.  
 MATHEMATICS AND NATURAL PHILOSOPHY.—1852-1877—Pell, Morris B., B.A., 1877-1902.—Gurney, Theodore T., M.A. (Professor *emeritus*)  
 CHEMISTRY AND EXPERIMENTAL PHYSICS.—1852-1885—Smith, the Hon. John, M.D., LL.D., C.M.G.  
 NATURAL HISTORY.—1882-1890—Stephens, Wm. John, M.A.  
 PHYSICS.—1886-1898—Threlfall, Richard, M.A.  
 GREEK.—1885-1900—Scott, Walter, M.A. (Professor *emeritus*)

## TEACHING STAFF.

- ANATOMY—Challis Professor—1890—\*James T. Wilson, M.B., Ch.M. (Edin.) (absent on leave). Acting Professor for 1905—F. P. Sandes, M.D., Ch.M.  
 Demonstrator—1905—S. A. Smith, M.B., Ch.M.  
 Lecturer in the Anatomy of the Central Nervous Organs for 1905—J. F. Flashman, B.A., M.D., Ch.M.  
 Honorary Demonstrators—Arthur A. Palmer, M.B., Ch.M.; Gordon Craig, M.B., Ch.M.; R. L. Davies, M.B., Ch.M.; Kate Hogg, M.B., Ch.B.; Mary Booth, M.B., Ch.M.  
 ARCHITECTURE—P. N. Russell Lecturer—1887—(a) John Sulman, F.R.I.B.A.  
 BIOLOGY—Challis Professor—1890—William A. Haswell, M.A., D.Sc. (Edin.), F.R.S.  
 Demonstrator in Biology and Lecturer in Embryology—1892—James P. Hill, D.Sc., F.L.S. Junior Demonstrator—1904—E. J. Goddard, B.A.

\* M.B., Ch.M., Honours 1888; late Demonstrator of Anatomy, University of Edinburgh.  
 (a) Appointment terminates on December 31st, 1907, under By-laws, Chap. xxvi., Sec. 2.

**CHEMISTRY**—Professor—1874—\*Archibald Liversidge, M.A., LL.D., F.R.S. (Christ's College, Cambridge).

Demonstrator and Evening Lecturer—1892—James A. Schofield, A.R.S.M., F.I.C. Junior Demonstrators—1901—T. H. Laby; 1903—E. Le Gay Brereton, A.I.M.M.

Demonstrator in Assaying and Chemistry—1900—Arthur Jarman, A.R.S.M., A.I.M.M.

**CLINICAL MEDICINE**—Lecturer—1889—(a) R. Scot-Skirving, M.B., Ch.M. (Edin.)

**CLINICAL SURGERY**—Lecturers—1895—(a) Charles P. B. Clubbe, M.R.C.S., L.R.C.P.; 1899—(a) H. V. Critchley Hinder, M.B., Ch.M.

**DENTISTRY**—Mechanical Dentistry, including Crown and Bridge Work—1901—W. Septimus Hinder, D.D.S. (Phila.); Clinical Dentistry, including Orthodontia—1901—N. V. Pockley, D.D.S. (Phila.); Surgical Dentistry, including Deformities—1901—R. Fairfax Reading, M.R.C.S., L.R.C.P., L.D.S. (Eng.)

**DISEASES OF WOMEN**—1897—(a) Joseph Foreman, M.R.C.S.

**ELECTRICAL ENGINEERING**—P. N. Russell Lecturer—1905—(b) Ernest Kilburn Scott, M.I.E.E., A.M. Inst. C.E., M. Amer. I.E.E. Junior Demonstrator—1904—P. L. Weston, B.Sc., B.E.

**ENGINEERING**—Challis Professor—1884—†William H. Warren, Wh.Sc., M. Inst. C.E.

P. N. Russell Demonstrator in Engineering and Drawing—1903—Alexander J. Gibson, A.M. Inst. C.E. Junior Demonstrator—1904—J. M. C. Corlette, B.E.

**EQUITY, PROBATE, BANKRUPTCY AND COMPANY LAW**—Challis Lecturer—1890—(a) G. E. Rich, M.A.

**GEOLOGY AND PHYSICAL GEOGRAPHY**—Professor—1891—‡T. W. Edgeworth David, B.A., F.R.S. (New College, Oxford), Acting Dean of the Faculty of Science.

Assistant Lecturer in Mineralogy and Petrology and Demonstrator in Geology—1905—W. G. Woolnough, D.Sc.

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\* Associate of the Royal School of Mines, London; late University Demonstrator of Chemistry, Cambridge.

† Member Inst. Civil Engineers, London; Member of the American Society of Civil Engineers; Whitworth Scholar; Society of Arts Technological Scholar.

‡ Late Scholar of New College, Oxford, and late Member of the Geological Survey of New South Wales.

(a) Appointment terminates on December 31st, 1907, under By-laws, Chap. xxvi., Sec. 2.

(b) Appointment terminates on December 31st, 1911, under By-laws, Chap. xxvi., Sec. 2.



**WILLIAM HILTON HOVELL LECTURER IN GEOLOGY AND PHYSICAL GEOGRAPHY**—T. W. Edgeworth David, B.A., F.R.S. (New College, Oxford).

**GREEK**—Professor—1901—William John Woodhouse, M.A. (Queen's College, Oxford).

**HISTORY**—Challis Professor—1891—G. Arnold Wood, M.A. (Balliol College, Oxford).

**LATIN** — Professor — 1891 — Thomas Butler, B.A. (Sydney). Assistant Lecturer—1903—Frederick Augustus Todd, B.A. (Sydney), Ph.D. (Jena).

**LAW**—Challis Professor—1890—Pitt Cobbett, M.A., D.C.L. (University College, Oxford), Dean of the Faculty of Law (absent on leave). Acting Professor for 1905—Professor Dugald Gordon McDougall, M.A., B.C.L. (Oxon.), M.A., LL.M. (Melb.)

**LAW OF PROCEDURE, EVIDENCE AND PLEADING**—Challis Lecturer—1901—(a) David Ferguson, B.A.

**LAW OF STATUS, CIVIL OBLIGATIONS AND CRIMES**—Challis Lecturer—1890—(a) F. Leverrier, B.A., B.Sc.

**LAW OF PROPERTY, CHALLIS LECTURER**—1903—(b) J. B. Peden, B.A., LL.B.

**LOGIC AND MENTAL PHILOSOPHY** — Challis Professor — 1890 — \* Francis Anderson, M.A. (Glasgow).

**MATERIA MEDICA AND THERAPEUTICS**—Lecturer—1883—(a) Thos. Dixon, M.B., Ch.M. (Edin.)

**MATHEMATICS, PURE AND APPLIED**—Professor—1903—† Horatio Scott Carslaw, M.A. (Cambridge), D.Sc., (Glasgow), F.R.S.E.

Assistant Lecturers—1886—A. Newham, B.A. (St. John's College, Cambridge), Evening Lecturer. 1887—E. M. Moors, M.A., F.I.A.

**MECHANICAL ENGINEERING.**—P. N. Russell Lecturer—1897—(b)§ S. Henry Barraclough, B.E. (Syd.), M.M.E. (Cornell), Assoc. M. Inst. C.E. Junior Demonstrator—1905—L. R. Woodcock, B.E.

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\* Late Clarke Philosophical Fellow University of Glasgow.

† Fellow of Emmanuel College, Cambridge, and formerly Lecturer in Mathematics, University of Glasgow.

(a) Appointment terminates on December 31st, 1907, under By-laws, Chap. xxvi., Sec. 2.

(b) Appointment terminates December 31st, 1910, under By-laws, Chap. xxvi., Sec. 2.

‡ Late Science Research Scholar of the Royal Commissioners of the Exhibition of 1861.

**MEDICAL JURISPRUDENCE**—Lecturer—1904—(*d*) Sydney Jamieson, B.A., M.B., Ch.M.

**MEDICAL TUTOR**—1901—G. E. Rennie, B.A., M.D. (Lond.)

**METALLURGY**—P. N. Russell Lecturer—1899—(*a*) Basil W. Turner, A.R.S.M.

**MIDWIFERY**—Lecturer—1897—(*a*) Sir James Graham, Kt., M.D., Ch.M. (Edin.)

**MINING**—P. N. Russell Lecturer—1902—(*b*) F. Danvers Power, F.G.S.

**MODERN LITERATURE**—Challis Professor—1887—\*Mungo W. MacCallum, M.A. (Glasgow), Dean of the Faculty of Arts.

Assistant Lecturers—English—1894—Ernest R. Holme, B.A. (absent on leave); 1905—H. S. Dettmann, B.A. (Syd.), B.C.L. (Oxon.) French and German—1903—George Gibb Nicholson, B.A. (Syd.), B.C.L. (Oxon.) French—Norman John Gough, B.A.

**OPHTHALMIC MEDICINE AND SURGERY**—Lecturer—1889—(*a*)† F. Antill Pockley, M.B., Ch.M. (Edin.)

**PALÆONTOLOGY**—Lecturer—1902—(*c*) William S. Dun.

**PATHOLOGY**—Professor—1902—David Arthur Welsh, M.A., B.Sc., M.D., M.R.C.P. (Edin.)

Demonstrator—1903—J. E. V. Barling, M.B., Ch.M.

**PHYSICS**—Professor—1899—J. Arthur Pollock, D.Sc. (Sydney).

Demonstrator—1903—O. U. Vonwiller, B.Sc. Junior Demonstrator—1905—H. A. Brooks, B.E.

**PHYSIOLOGY**—Professor—1883—‡ T. P. Anderson Stuart, M.D., Ch.M., LL.D. (Edin.), Dean of the Faculty of Medicine.

Demonstrator—1903—H. G. Chapman, M.D., B.S.

**PRINCIPLES AND PRACTICE OF MEDICINE**—Lecturer—1901—(*a*)§ W. Camac Wilkinson, B.A. (Syd.), M.D. (Lond.), M.R.C.P. (Lond.)

\* Late Professor of English Literature in University College, Aberystwyth, Wales; late Luke Fellow, University of Glasgow.

† M.B., Ch.M., First Class Honours, University Medal; Scholar and Prizeman, Edin., 1884.

‡ M.B., Ch.M., First Class Honours, Ettles Scholar, 1880; M.D., Thesis Gold Medal, 1882, Edin.; late Assistant to Professor of Physiology, Edinburgh.

§ M.B. First Class Honours Medicine, University Scholarship and Gold Medal.

(*a*) Appointment terminates 31st December, 1907, under By-laws, Chap. xxvi., Sec. 2.

(*b*) Appointment terminates 31st December, 1909, under By-laws, Chap. xxvi., Sec. 2.

(*c*) Appointment terminates 31st December, 1908, under By-laws, Chap. xxvi., Sec. 2.

(*d*) Appointment terminates 31st December, 1910, under By-laws, Chap. xxvi., Sec. 2.

**PRINCIPLES AND PRACTICE OF SURGERY**—Lecturer—1890—  
(a) Alexander MacCormick, M.D. (Edin.)

**PSYCHOLOGICAL MEDICINE**—Lecturer—1889—(a) Chisholm Ross,  
M.D. (Syd.)

**PUBLIC HEALTH**—1904—(c) William G. Armstrong, B.A., M.B.,  
Ch.M.

**SURGICAL TUTOR**—1901—John Morton, M.B., Ch.M.

**SURVEYING**—P. N. Russell Lecturer—1890—(a) Geo. H. Knibbs,  
L.S., F.R.A.S.

**TUTOR TO THE WOMEN STUDENTS**—1900—Isabel Margaret Fidler,  
B.A.

## HONORARY LECTURERS.

Dr. F. A. Bennet—Diseases of the Skin.

Dr. J. F. Flashman—Demonstrations in Psychological Medicine  
and Neurology.

Dr. G. T. Hankins—Diseases of the Ear.

Dr. P. Sydney Jones—The Ethics of Medical Practice.

Dr. A. E. Mills—Diseases of Children.

Dr. T. Fiaschi—History of Medicine.

## CURATORS OF MUSEUMS.

**MUSEUM OF NORMAL AND MORBID ANATOMY**—Professor D. A.  
Welsh, M.A., B.Sc., M.D. (Honorary).

**MACLEAY MUSEUM OF NATURAL HISTORY**—George Masters.

**NICHOLSON MUSEUM OF EGYPTIAN, GREEK, ROMAN AND MEDÆVAL  
ANTIQUITIES** — Professor W. J. Woodhouse, M.A.  
(Honorary).

## EXAMINERS FOR 1903-4.

## EXAMINERS IN ARTS.

The Professors.

Rev. F. V. Pratt, B.A.

The Lecturers.

D. G. Stewart, B.A.

## EXAMINERS IN LAW.

The Professors.

G. W. Waddell, M.A., LL.D.

The Lecturers.

S. A. Thompson, B.A.

(a) Appointment terminates 31st December, 1907, under By-laws, Chap. xxvi., Sec. 2.

(c) Appointment terminates 31st December, 1910, under By-laws, Chap. xxvi., Sec. 2.

## UNIVERSITY OFFICERS.

## EXAMINERS IN MEDICINE.

The Professors.

The Lecturers.

W. G. Armstrong, B.A., M.B., Ch.M.

Fourness Barrington, F.R.C.S. (Eng.), M.B., Ch.M. (Edin.)

Thomas Fiaschi, M.D. (Pisa).

J. Macdonald Gill, M.D., L.R.C.P., M.R.C.S.

S. Jamieson, B.A., M.B., Ch.M.

E. J. Jenkins, B.A., M.D. (Oxon.)

G. T. Hankins, M.R.C.S. (Eng.)

P. Sydney Jones, M.D. (Lond.)

Stanhope H. McCulloch, M.B., Ch.M. (Edin.)

The Hon. Sir H. N. MacLaurin, M.A., M.D. (Edin.), LL.D.

W. Odillo Maher, M.D., Ch.M. (Q.U.I.), M.R.C.S. (Eng.)

Arthur E. Mills, M.B., Ch.M.

A. E. Perkins, M.A., M.B., Ch.M.

The Hon. Sir Arthur Renwick, Kt., B.A., M.D. (Edin.)

Eric Sinclair, M.D., Ch.M.

Professor E. C. Stirling, M.D.

## EXAMINERS IN DENTISTRY.

The Professors.

The Lecturers.

A. Burne, D.D.S. (Phil.)

A. B. Cox, L.R.C.P. (Lond.), L.S.A. (Lon.), M.R.C.S. (Eng.)

## EXAMINERS IN SCIENCE.

The Professors.

Professor T. R. Lyle, M.A.

The Lecturers.

Professor E. H. Rennie, M.A.

J. J. C. Bradfield, M.E.

(Syd.), D.Sc. (Lond.)

Professor W. H. Bragg, M.A.

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REGISTRAR AND LIBRARIAN, 1882—H. E. Barff, M.A.  
ESQUIRE BEDELL, 1897—John Mitchell Purves, M.A.  
UNIVERSITY SOLICITOR, 1886—Hon. James Norton, LL.D., M.L.C.  
CHIEF CLERK AND ACCOUNTANT, 1887—Robert A. Dallen.  
ASSISTANT LIBRARIAN, 1902—John Le Gay Brereton, B.A.  
JUNIOR ASSISTANT LIBRARIAN, 1905—Kenneth Binns.  
HON. SECRETARY OF THE UNIVERSITY EXTENSION BOARD—  
Professor MacCallum, M.A.  
CLERK, 1887—William S. Mayer.  
JUNIOR CLERK, 1902—Charles W. Peacock.  
JUNIOR ASSISTANT IN THE LIBRARY—G. C. Whitney.  
AUDITOR, 1899—David Fell.  
YEOMAN BEDELL—S. Craddock.  
OVERSEER OF THE UNIVERSITY PARK AND GROUNDS—Henry  
Goodhew.

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# MEMBERS OF THE UNIVERSITY.

## MEMBERS OF CONVOCATION.

H.R.H. the Prince of Wales, LL.D.‡	Armitage, Charles Horsfall, B.A., 1902
Abbott, George H., B.A., 1887, M.B., Ch.M.	Armstrong, Helen Daphne Harvey, B.A., 1902
Abbott, Henry Palmer, B.A., 1893	Armstrong, Ina Beatrice Harvey, B.A., 1901
Abbott, Thos. K., B.A., 1888	Armstrong, Isabella, B.A., 1895
Abigail, Eliza L., B.A., 1893 (Mrs. Bates)	Armstrong, Laurens F. M., B.A., 1884, LL.B.
Abigail, Ernest Robert, B.A., 1896, LL.B.	Armstrong, Margaret Jane, B.A., 1897
Affleck, Ada C., M.B., Ch.M. (Mrs. Hardman)	Armstrong, Tancred de Carteret, B.A., 1891
Alexander, Maud Marion, B.A., 1902	Armstrong, William G., B.A., M.B., Ch.M.¶
Allan, Edith Jeannie, B.A., 1895 (Mrs. Costello)	Arnold, Edwin Charles, B.A., 1896
Allen, Arthur Wigram, B.A., 1883‡	Arnott, Robert Fleming, B.E., 1895
Allen, George Boyce, B.A., 1877	Artlett, Ettie, B.A., 1888 (Mrs. Starkey)
Allen, Reginald C., B.A., 1879	Artlett, William Langridge, B.A., 1902
Ambrose, Theodore, M.B., Ch.M.	Aspinall, Arthur Ashworth, B.A., 1889
Amess, William, B.A., 1883	Atkins, William L., B.A., 1893
Amos, Jeanie Cairns, B.A., 1890 (Mrs. Anderson)	Auld, John Hay Goodlet, B.A., 1897
Amos, Nellie Margaret, B.A., 1902	Ayres, Charles, B.A., 1882
Amphlett, Edward Albin, B.E., 1889	Backhouse, Alfred Paxton, M.A.†
Amphlett, Henry Martin, B.E., 1897	Bailey, Margaret Anne, B.A., 1900
Anderson, Arthur, M.B., Ch.M.	Ball, Lionel Clive, B.E., 1900
Anderson, Catherine, M.A.	Bancroft, Peter, M.B., Ch.M.
Anderson, Francis, M.A.‡¶	Barber, Richard, M.A.
Anderson, Henry C. L., M.A.†	Barbour, George Pitty, M.A.
Anderson, Hugh Miller, B.A., M.B., Ch.M.	Barff, Henry E., M.A.*
Anderson, Maud Edith, B.A., 1896 (Mrs. Ashton)	Barker, Henry Auriol, B.A., 1881‡
Anderson, William A. S., B.A., 1892	Barker, Reginald Frederick, B.E., 1900
Andrews, Ernest Clayton, B.A., 1894	Barker, Thomas Chas., B.A., 1886
Andrews, William, M.B., 1887‡	Barlee, Frederick R., M.A.
Anstey, George Webb, B.A., 1893	Barling, James Eric Vernon, M.B., Ch.M.¶
d'Apice, Antoine Wm. M., B.A., 1899, LL.B.	Barnes, Edmund H., M.B., Ch.M.
d'Apice, John Edmund Francis, B.Sc., 1900	Barnes, Pearl Ella, M.A.
	Barnet, Donald McKay, B.A., 1890

\* Superior Officer.

† Fellow of the Senate.

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.

- Barraclough, Francis Egerton, B.A., 1895, LL.B.  
 Barraclough, Samuel H., B.E., 1892¶  
 Barret, James, M.D.  
 Barrington, Fourness, F.R.C.S., M.B., Ch.M.†  
 Barry, Alfred, LL.D.‡  
 Barry, Hugh de Barri, B.A., 1898  
 Barton, Right Hon. Sir Edmund, M.A.†  
 Barton, John a'Beckett Darvall, B.A., M.B., Ch.M.  
 Barton, Joanna, B.A., 1893  
 Bavin, Gertrude Lillian, B.A., 1898  
 Bavin, Thos. Rainsford, B.A., 1894, LL.B.  
 Baylis, Harold M., B.A., 1883  
 Beardmore, Ada, B.A., 1896  
 Beardsmore, Emily Maud, B.A., 1894  
 Beardsmore, Robt. Henry, B.A., 1896  
 Beaumont, Annie Holloway, B.A., 1898  
 Beaver, William Richard, B.E., 1899  
 Beegling, Daniel, B.A., 1885  
 Beehag, Samuel Alfred, B.A., 1886  
 Belgrave, T. B., M.D.‡  
 Bell, Harry C. Rikard, M.B., Ch.M.  
 Benjafield, Vivian, M.B., Ch.M.  
 Bennet, Francis Alexander, M.D.‡  
 Bennett, Agnes Elizabeth L., B.Sc., 1894  
 Bennetts, Harold Graves, M.B., Ch.M.  
 Berne, Percy Witton, B.A., 1883  
 Bertie, Charlotte Maud, B.A., 1896  
 Biffin, Harriett E., M.B., Ch.M.  
 Binney, Ed. Harold, M.B., Ch.M.  
 Binns, William Johnstone, M.A.  
 Birch, William John, B.E., 1891  
 Black, Reginald A. W., B.A., 1896, B.E.  
 Blackburn, Charles B., M.D., Ch.M.  
 Blacket, Arthur R., B.A., 1872  
 Blacket, Cuthbert, B.A., 1891  
 Blair, John, M.D.  
 Blatchford, Torrington, B.A., 1894  
 Blaxland, Henry Charles, B.A., 1897  
 Bligh, Erasmus A. R., M.B., Ch.M.  
 Bloomfield, Elsie I'Anson, B.A. 1897 (Mrs. Horder)  
 Bloomfield, William John, B.A., 1896, LL.B.  
 Blue, Archibald Irwin, M.B., Ch.M.  
 Blumer, Charles, B.A., 1894  
 Blumer, George Alfred, M.A.  
 Board, Peter, M.A.  
 Bode, Arnold G. H., B.A., 1888  
 Bonamy, Nellie Mildred Blanche, B.A., 1899  
 Boelke, Paul, M.B., Ch.M.  
 Böhrsmann, Gustav Hall, M.B., Ch.M.  
 Böhrsmann, Rudolph H., M.B., Ch.M.  
 Bolton, Barbara Marion, B.A., 1902  
 Bond, Lionel Wilfred, M.B., Ch.M.  
 Booth, Mary, B.A., 1890  
 Bourne, Eleanor Elizabeth, M.B., Ch.M.  
 Bowden, John Ebenezer, M.A.  
 Bowker, Cedric Victor, M.B., 1898  
 Bowmaker, Jessie, B.A., 1901  
 Bowmaker, Ruth, M.A. (Mrs. Britton)  
 Bowmaker, Theophilus Robert, B.A., 1896  
 Bowman, Alister S., B.A., 1878  
 Bowman, Andrew, M.A.  
 Bowman, Archer, B.E., 1889  
 Bowman, Arthur, B.A., 1880  
 Bowman, Edward, M.A.  
 Bowman, Ernest M., B.A., 1880  
 Boxall, Nelson Leopold, B.A., 1896  
 Boyce, Francis Stewart, B.A., 1893, LL.B.  
 Boyd, Arthur, B.Sc., 1901, B.E.  
 Boyd, Robert James, B.E., 1898  
 Boyd, William Sprott, B.E., 1901  
 Brade, Gerald Francis, M.B., 1899  
 Bradfield, John Job Crew, M.E.†  
 Bragg, W. H., M.A.†  
 Brearley, Joseph Henry Draper, B.Sc., 1894, B.E.  
 Brennan, Christopher J., M.A.  
 Brennan, Francis P., M.A.  
 Brennan, Sarah O., M.A., B.Sc.  
 Brennand, Henry John W., B.A., M.B., Ch.M.  
 Brereton, Ernest Le Gay ¶  
 Brereton, John Le Gay, B.A., 1894  
 Brierley, Frank Nunan, M.A., LL.B.

¶Admitted *ad eundem gradum*.

¶Public Teacher

‡ Examiner.

† Fellow of the Senate.

Britten, Herbert E., B.A., 1888  
 Britton, Theodosia Ada, B.A., 1891  
 Broadbent, Percy Lewis, M.B., Ch.M.  
 Broderick, Cecil Thomas Hawkes, B.A., 1896, LL.B.  
 Brodie, Isabella Esther, B.A., 1895 (Mrs. Newton)  
 Broinowski, Gracius Herbert, M.B., 1897  
 Broinowski, Leopold T., B.A., 1897  
 Brook, Henry James Sidney, B.A., 1896  
 Brooks, Harold Arthur, B.E., 1905¶  
 Broome, Edward, B.A., 1897  
 Broughton, Alfred, M.A.  
 Brown, Alfred, B.A., 1866  
 Brown, George Edward, M.A.  
 Brown, Mary E., B.A., 1885  
 Brown, Sophia, B.A., 1894  
 Brown, William Vernon, B.A., 1894  
 Browne, Claude Seccombe, M.B., Ch.M.  
 Browne, William C., B.A., 1864  
 Brownlie, Elizabeth Alice Dalziel, B.A., 1901  
 Brownlie, Eveline Agnes, B.A., 1902  
 Bruce, Annie, B.A., 1901  
 Bruce, Grace Mitchell, B.A., 1901  
 Bruce, Mary H., B.A., 1887 (Mrs. Walker)  
 Bruce, Mary Jane, B.A., 1896  
 Buchanan, Chas. Arthur, B.A., 1889  
 Buchanan, Charles Pakenham, B.A., 1900  
 Buchanan, George Arthur, M.B., Ch.M.  
 Buckland, Thomas, B.A., 1878  
 Bucknell, D'Arcy H., M.A.  
 Bucknell, Louis Jeffrey, B.E., 1891  
 Bundock, Charles W., B.A., 1878  
 Bundock, Francis F., B.A., 1877  
 Bunting, Edith Annie, B.A., 1896  
 Burfitt, Walter F., B.A., B.Sc., M.B., Ch.M.  
 Burge, Stephen Bruce, M.B., 1900  
 Burkitt, Edmund Henry, M.B., 1896  
 Busby, Hugh, M.B., Ch.M.  
 Bushnell, Pollie, B.A., 1896  
 Butler, Francis J., B.A., 1882  
 Butler, Patrick James, B.A., 1900

Butler, Spencer Joseph St. Clair, B.A., 1893, LL.B.  
 Butler, Stanley Wm. Beauchamp, B.A., 1900  
 Butler, Thomas, B.A., 1876¶†  
 Byrne, Lily Comyn, B.A., 1896  
 Byrne, James Kevin, B.A., 1894  
 Byrne, William Edmund, B.A., 1892  
 Cadden, Leslie George Barton, B.A., 1899  
 Cahill, Annie Lucille, B.A., 1894  
 Cakebread, William Jowers, B.A., 1894  
 Cameron, Archibald Peter, B.A., 1894  
 Cameron, Colin Bowman, B.E., 1902  
 Cameron, Donald Allan, M.B., Ch.M.  
 Campbell, Allan, B.A., 1874  
 Campbell, Charles Robert, B.A., 1893  
 Campbell, Edward, M.A.  
 Campbell, George P., B.A., 1885  
 Campbell, Gerald R., M.A.  
 Campbell, John Stuart, B.A., 1902  
 Campbell, Joseph, M.A.  
 Canaway, Arthur P., B.A., 1894‡  
 Cape, Alfred John, M.A.  
 Cargill, John Sydney, B.A., 1889  
 Cargill, William Duthie, M.B., Ch.M.  
 Carlisle-Thomas, Ella, B.A., 1900 (Mrs. Budden)  
 Carlile-Thomas, Julia, M.B., Ch.M. (Mrs. Fox)  
 Carlisle, W. W., B.A., 1878  
 Carlos, Joseph, B.A., 1893‡  
 Caro, Hilda, B.A., 1896  
 Carruthers, Joseph H., M.A.  
 Carslaw, Horatio Scott, M.A., D.Sc.¶  
 Carvosso, Albert B., B.A., 1884  
 Casey, Michael Alphonsus, B.A., 1896  
 Castleman, Arthur, B.A., 1902  
 Castling, James Robert, B.A., 1896  
 Challands, Fred., M.B., Ch.M.  
 Chalmers, Stephen Drummond, M.A.  
 Chambers, George Alexander, M.A.  
 Chapman, Alfred Ernest, B.A., 1893, LL.B.  
 Chapman, Henry G., M.D., B.S.¶  
 Chenhall, William Thomas, M.B., 1897‡  
 Chisholm, Edwin Claude, M.B., Ch.M.

† Fellow of the Senate.

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.



- Chisholm, Wm., B.A., 1875, M.D.†  
 Chubb, Montague Charles Lyttelton, B.A., 1896  
 Clark, Francis Geo., B.A., 1900, LL.B.  
 Clarke, Francis W., B.A., 1884  
 Clarke, Gother Robert C., M.B., Ch.M.  
 Clarke, Philip Sylvester, M.B., Ch.M.  
 Clegg, William Carnegie, B.A., 1899, LL.B.  
 Cleland, John Burton, M.D., Ch.M.  
 Clipsham, Gertrude Mary, B.A., 1899  
 Clines, Peter Jos., B.A., 1896, LL.B.  
 Closs, Wm. John Leech, B.A., 1890  
 Clubb, Wallace, B.A., 1896  
 Clubbe, Chas. P. B., M.R.C.S., L.R.C.P.¶  
 Cobbett, Pitt, M.A., D.C.L.¶†  
 Cocks, Nicholas John, M.A.  
 Coffey, Francis Louis Verhulst, B.A., 1894, LL.B.  
 Coghlan, Charles A., M.A., LL.D.  
 Coghlan, Iza Frances Josephine, M.B., Ch.M.  
 Cohen, John J., M.A.  
 Cole, Louisa, B.A., 1898  
 Cole, Percival Richard, M.A.  
 Colyer, Moreton John Godden, B.E., 1896  
 Combes, Edgar William Anthony, M.B., Ch.M.  
 Combes, Jane Frances, B.A., 1895  
 Conlon, William Aloysius, B.A., M.B., Ch.M.  
 Connellan, John, B.A., 1892  
 Connolly, John, B.A., 1894  
 Connolly, Thomas Patrick, M.B., Ch.M.  
 Connor, Thomas John, B.A., 1895  
 Cook, Sydney Leicester, B.A., 1898  
 Cook, Walter Edmund, M.E.‡  
 Cooke, Clarence Hudson, B.A., 1892  
 Cooley, Percy Glover, M.B., Ch.M.  
 Cooper, David John, M.A.  
 Cooper, Sir Pope Alexander, M.A.  
 Cope, Hubert Roger, M.B., 1898  
 Copland, Frank Fawcett, B.A., 1894  
 Corbett, Wm. F., B.A., 1883  
 Corbin, Albert George, B.Sc., M.B., Ch.M.  
 Cordingley, Grace Marion, M.A.  
 Corfe, Anstruther John, M.B., Ch.M.  
 Corlette, Cyril E., M.D., Ch.M.  
 Corlette, James Montagu Christian, B.E., 1902¶  
 Cormack, Alex. John, M.A.  
 Cosh, James, B.A., 1891  
 Cosh, John Inglis Clark, M.B., Ch.M.  
 Cowan, David, B.A., 1894  
 Cowlishaw, Wm. Patten, M.A.  
 Cowper, Sedgwick Spelman, M.A.  
 Cox, Frederick Henry, M.B., 1896  
 Cox, Harold, B.A., 1889  
 Coyle, William Thomas, B.A., 1891  
 Craig, Alex. Donald, B.A., 1893, B.E.  
 Craig, Charles, B.A., 1892, LL.B.  
 Craig, Robert Gordon, M.B., Ch.M.  
 Crane, Charles, B.A., 1882  
 Crane, John T., B.Sc., 1887  
 Crawford, Stella Maud C., B.A., 1896  
 Crawford, Thomas Simpson, M.A.  
 Crawley, Aubrey Joseph Clarence, M.B., Ch.M.  
 Creagh, Albert J., B.A., 1889  
 Creagh, William John, B.A., 1892, LL.B.  
 Cribb, Estelle Muriel Bridson, M.A.  
 Cribb, John Geo., M.A.  
 Cripps, Esther Fischer, B.A., 1891  
 Crisford, Hilda Nelsie Moore, B.A., 1902  
 Crocker, Herbert D., M.A.  
 Crompton, William, M.A.  
 Crowley, Archibald, B.A., 1901  
 Cruise, Emily A., B.A., 1897  
 Cullen, Wm. P., M.A., LL.D.†  
 Cullinane, John Aloysius, B.A., 1895, LL.B.  
 Cumming, Jennie, B.A., 1896 (Mrs. Kinnear)  
 Curlewis, Harold Burnham, B.A., 1897  
 Curlewis, Herbert Raine, B.A., 1890, LL.B.  
 Curnow, William Leslie, B.A., 1890  
 Curtis, William C., M.A.  
 Curtis, William John, M.A., LL.B.  
 Daley, Frank H., B.A., 1889  
 Dalmas, Lizzie, B.A., 1895

† Fellow of the Senate.

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.

Daly, May Edith, B.A., 1896 (Mrs. McDonald)  
 Dalton, Gerald T. A., M.A.  
 Dansey, St. John Warburton, M.B., Ch.M.  
 D'Arcy-Irvine, Malcolm Mervyn, B.A., 1889  
 D'Arcy, Constance Elizabeth, M.B., Ch.M.  
 D'Arcy, George Synnott, B.A., 1896  
 D'Arcy, John Synnott, B.A., 1890  
 Dare, Henry H., M.E.  
 Dargin, Sydney, B.A., 1871  
 Dash, Ebenezer, B.A., 1894  
 David, T. W. Edgeworth, B.A., F.R.S.†  
 Davidson, Colin George Watt, B.A., 1899, LL.B.  
 Davidson, Leslie G., M.B., Ch.M.  
 Davies, Arthur Bernard, B.A., 1894, LL.B.  
 Davies, Edith Warlow, M.A.  
 Davies, Reginald L., M.B., Ch.M.  
 Davies, Wyndham John E., B.A., 1893, LL.B.  
 Davis, Agnes Marianne Harrison, B.A., 1896, B.Sc. (Mrs. S. E. Cook)  
 Davis, Henry, B.A., 1890  
 Davis, James Shedden, M.D., Ch.M.  
 Davison, Samuel Beaumont, B.A., 1896  
 Dawson, Arthur F., M.A.  
 Dawson, James, M.A.‡  
 Day, Leo Septimus, B.A., 1899  
 Deane, Henry, M.A.‡  
 Deane, Henry James, B.E., 1897  
 Deane, William Smith, M.A.  
 De Lissa, Ethel Naida, B.A., 1898 (Mrs. Bensusan).  
 De Lissa, Horace, B.A., 1896  
 Deck, George Henry Baring, M.B., Ch.M.  
 Deck, John Northcote, M.B., Ch.M.  
 Delohery, Cornelius, M.A.  
 Delohery, Henry Charles, M.B., 1899  
 Dennis, James, M.A.  
 Dettmann, Herbert Stanley, B.A., 1897

Dey, Charlotte Johnston, B.A., 1898 (Mrs. Stuckey)  
 Dey, Robert, M.B., Ch.M.  
 Dick, James Adam, B.A., 1886  
 Dick, Robert, M.B., Ch.M.  
 Dick, William Thomas, B.A., 1890  
 Dickinson, Edward Moseley, B.A., 1899.  
 Dight, Wilfred Billingsley, M.B., Ch.M.  
 Dimond, Margaret Cecilia, B.A., 1893  
 Dixon, Graham Patrick, M.B., Ch.M.  
 Dixon, James Thomson, B.E., 1895  
 Dixon, Herbert Hutchinson, B.A., 1894  
 Dixon, Thos. S., M.B., Ch.M.¶  
 Doak, Frank Wiseman, B.A., 1891  
 Doak, Walter James, B.E., 1895  
 Docker, Ernest B., M.A.  
 Doig, Alexander John, B.A., 1895  
 Donovan, John J., LL.D.  
 Dove, Wm. Rd. Norton, B.A., 1893  
 Doust, Edith Lucy, M.A. (Mrs. Wolstenholme)  
 Dowe, Philip William, B.A., 1893  
 Dowling, Frank Vincent, B.A., 1898  
 Doyle, John, B.A., 1891‡  
 Drummond, Shafto L., B.A., 1893  
 Dudley, Joseph T., B.A., 1885  
 Dumolo, Nona, B.A., 1898  
 Dun, William Sutherland¶  
 Dunnicliff, May Clifton, B.A., 1898  
 Dunlop, John W., B.A., 1895  
 Dunlop, Norman John, B.A., B.Sc., M.B., Ch.M.  
 Dunne, John D., B.A., 1873  
 Dunstan, Ephraim, M.A.  
 Durack, Joseph Jerry E., B.A., 1899  
 Durack, William Joseph, M.B., Ch.M.  
 Eames, Jane, B.A., 1895  
 Edmunds, John Michael, B.A., 1892  
 Edmunds, May, B.A., 1897  
 Edmunds, Walter, M.A., LL.B.  
 Edwards, David Sutherland, B.A., 1894, LL.B.  
 Edwards, Edward Evan, B.A., 1898  
 Edwards, Edward Samuel, M.A.  
 Edwards, J. Ross, M.A.  
 Edwards, John, B.A., 1891

†Fellow of the Senate.

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.

- Eichler, William Otto Heldmuth, M.B., Ch.M.  
 Elder, Francis R., B.A., 1877  
 Eldridge, Ada Maitland, M.A.  
 Elkin, Jonathan Bevan, B.A., 1895  
 Elliott, Millicent V., B.A., 1895  
 Ellis, Ethel, B.A., 1894  
 Ellis, Mary, B.A., 1894 (Mrs. George)  
 Ellis, Lawrence Edward, M.B., Ch.M.  
 Elphinstone, Elsie Mary, B.A., 1899  
 Elphinstone, James, B.A., 1881  
 Elphinstone, James Cooke, B.A., 1896, LL.B.  
 Elworthy, Wm. Henry, M.B., Ch.M.  
 Emanuel, Nathaniel, B.A., 1867  
 England, Theo., B.A., 1885  
 England, Thomas H., B.A., 1885  
 Enright, Walter John, B.A., 1893  
 Evans, Ada E., B.A., 1895, LL.B.  
 Evans-Jones, David Pentland, B.A., 1898, LL.B.  
 Fahey, Bartley Francis, B.A., 1901, LL.B.  
 Fairfax, Edward Wilfred, M.B., Ch.M.  
 Faithfull, George Ernest, M.A.  
 Faithfull, Henry Montague, M.A.  
 Faithfull, William Percy, M.A.  
 Farrell, Robert M., M.B., Ch.M.  
 Feez, Arthur H., B.A., 1880  
 Fell, Catherine Isabella, B.A., 1900  
 Ferguson, David, B.A., 1886<sup>†</sup>  
 Ferguson, John Alexander, B.A., 1902, LL.B.  
 Fiaschi, Thomas, M.D.‡  
 Fidler, Carleton B., B.A., 1888  
 Fidler, Isabel Margaret, B.A., 1898<sup>¶</sup>  
 Finn, William George, B.A., 1895  
 Finney, Charlotte, B.A., 1895 (Mrs. Hodge)  
 Finney, Joseph, B.A., 1894  
 Fisher, Donnelly, M.A.  
 Fitz, Norman, B.E., 1888  
 Fitzgerald, Edmund, B.A., 1866  
 Fitzgerald, John Thomas, B.A., 1890  
 Fitzgerald, Robert Marsden, M.A.  
 Fitzhardinge, Grantley Hyde, M.A.  
 Fitzhardinge, Maude Yeomans, M.A.  
 Fitzpatrick, Bernard Joseph, B.A., 1897  
 Fitzpatrick, Edward Bede Lucien, M.B., Ch.M.  
 Fitzpatrick, Thomas John Augustine, B.A., 1893  
 Flannery, George Ernest, B.A., 1892, LL.B.  
 Flashman, James Froude, B.A., B.Sc., M.D., Ch.M.  
 Flavell, Lucy Isabel, B.A., 1896  
 Flecker, Oscar Sydney, M.B., Ch.M.  
 Fleming, Howard G. T., B.A., 1894  
 Fletcher, Archibald William, B.A., 1886, B.Sc.  
 Fletcher, Charles R., B.A., 1881  
 Fletcher, Frank E., M.A.  
 Fletcher, Joseph J., M.A.  
 Fletcher, Katherine Eliz., B.A., 1895  
 Fletcher, Michael Scott, M.A.,  
 Flint, Charles A., M.A.  
 Flynn, John E., M.A.  
 Flynn, Joseph Alban, M.A.  
 Flynn, William J., B.A., 1884  
 Forde, James, B.A., 1891, B.Sc.  
 Fordyce, Henry St. C., M.B., Ch.M.  
 Foreman, Henry James Clifton, B.A., 1896  
 Foreman, Joseph, M.R.C.S.¶  
 Forster, Charles E., B.A., 1876  
 Forster, Redmond Clarence Hall, M.B., Ch.M.  
 Forsyth, Walter George, B.A., 1898, LL.B.  
 Fosbery, Eustace E., M.A.  
 Fox, Harold S., B.A., 1885  
 Fox, Hedley Ebenezer, M.B., Ch.M.  
 Fraser, Robert W., B.A., 1885  
 Francis, Henry Ralph, M.A.  
 Fraser-Hill, Charlotte Elizabeth, B.A., 1902  
 Freehill, Francis B., M.A.  
 Freeman, Ambrose William, B.A., 1896, B.E.  
 Freshney, Reg., M.B., Ch.M.  
 Fry, Florence Mildred, M.A.  
 Fuller, George W., M.A.  
 Fullerton, Alexander Y., B.A., 1885  
 Fullerton, Lottie, M.A. (Mrs. Austin)  
 Galt, James, B.A., 1899  
 Garde, Henry Lee, M.B., Ch.M.  
 Gardiner, Andrew, M.A.§

‡ Examiner.

† Admitted *cul eundem gradum*.

¶ Public Teacher.

Garland, James Robert, M.A.  
 Garland, John, M.A. §  
 Garnsey, Arthur Henry, M.A.  
 Garnsey, Edward R., B.A., 1885  
 Garrick, Joseph Hector, M.A.  
 Garran, Robert R., M.A.  
 Geddes, Samuel, B.A., 1885  
 George, John, B.A., 1893  
 Gerber, Edward W. T., B.A., 1892,  
 LL.B.  
 Gibbes, Alfred George, M.A.  
 Gibson, Alexander J. ¶  
 Gibson, Charles George, B.E., 1900  
 Gill, Alfred Chalmers, M.A., LL.B.  
 Gill, J. Macdonald, M.D. ‡  
 Gillam, Dora Alice, M.A.  
 Gillies, James, B.A., 1889  
 Gillies, Sinclair, M.D. §  
 Godsall, Robert Spencer, M.B., Ch.M.  
 Goergs, Karl R. W., M.B., Ch.M.  
 Goldsmid, Albert, M.B., 1895  
 Gordon, Emily Isabel, M.A.  
 Gordon, George Acheson, B.A., 1895  
 Gorman, John R., B.A., 1866  
 Gorringe, Lloyd Septimus, B.E., 1901  
 Gough, Norman John, B.A., 1900 ¶  
 Gould, Hubert John, B.E., 1902  
 Graham, Sir James, M.B., 1886 § ¶  
 Graham, Mabel Jessie, M.B., Ch.M.  
 Grassick, Charles C., B.A., 1897  
 Gray, Arthur St. J., M.A. §  
 Green, Arthur V., LL.D.  
 Green, Henry Mackenzie, B.A.,  
 1902, LL.B.  
 Green, Terence Albert, M.B., 1893  
 Greenham, Eleanor Constance, M.B.,  
 Ch.M.  
 Greenlees, Gavin, B.A., 1895  
 Greenway, Alfred R., B.A., 1870  
 Gregson, William Hilder, B.A., 1898  
 B.E.  
 Grey, William Charles, M.B., Ch.M.  
 Grieve, John Thomas, B.A., 1902  
 Grieve, Robert Henry, B.A., 1900  
 Griffith, Alfred John, M.A.  
 Griffith, James Shaw, B.A., 1895  
 Griffith, Rt. Hon. Sir Samuel W.,  
 M.A. †  
 Griffiths, Frederick Guy, B.A., 1898,  
 M.B.

Grogan, Albert Thos. Henry, B.A.,  
 1897  
 Grut, Charles Frederick de Jersey,  
 B.E., 1901  
 Gullett, Lucy Edith, M.B., Ch.M.  
 Hadley, Alfred Edward, B.A., 1893  
 Hadley, Charles William, B.A., 1899  
 Halcombe, Charles Digby, M.B.,  
 1902  
 Hall, Alfred Ernest, B.A., 1893  
 Hall, Edwin Cuthbert, M.D., Ch.M.  
 Hall, William Hessel, M.A.  
 Hall, George R. P., B.Sc., M.B.,  
 Ch.M.  
 Halliday, George C., B.A., 1884  
 Halliday, John Charles W., M.B.,  
 Ch.M.  
 Halloran, Aubrey, B.A., 1892, LL.B.  
 Halloran, George Henry, B.A., 1896  
 Halloran, Ida, B.A., 1893 (Mrs.  
 Yabsley)  
 Halloran (formerly Guérin), Bella,  
 M.A. §  
 Hammond, Alfred de Lisle, M.A.  
 Hammond, John Harold, B.A.,  
 1896, LL.B.  
 Handcock, Charles Lancelot, M.B.,  
 Ch.M.  
 Hankins, George T., M.R.C.S. ‡  
 Hansard, Edith Hirst, B.A., 1897  
 (Mrs. Hirst)  
 Hardman, Robert, M.B., 1900  
 Hargraves, Edw. John, B.A., 1859  
 Harker, Constance Elizabeth, B.A.  
 1895  
 Harker, George, B.Sc. 1899  
 Harper, Rev. Andrew, M.A., D.D. ||  
 Harriott, Charles Warre, B.A., 1889  
 Harriott, Georgina Jane, B.A., 1894  
 Harris, Edward, M.A. §  
 Harris, George, B.A., 1891, LL.B.  
 Harris, John, B.A., 1892  
 Harris, Lawrence Herschell Levi,  
 M.B., Ch.M.  
 Harris, Marian, B.A., 1898, B.Sc.  
 Harris, Sir Matthew, B.A., 1863  
 Harris, Reginald Arthur, B.A., 1902  
 Harris, Walter Eli, M.B., Ch.M.  
 Harris, William Henry, M.B., Ch.M.  
 Hart, Basil Lloyd, M.B., Ch.M.

‡ Examiner.    § Admitted *ad eundem gradum*.    ¶ Public Teacher.  
 † Fellow of the Senate.    || Head of College.

Harvey, Revina, B.A., 1895  
 Harvey, William George, B.A., 1894  
 Harwood, Marian Fleming, B.A., 1898  
 Haswell, William A., M.A., D.Sc., F.R.S.¶  
 Hawken, Roger Wm. Hercules, B.E., 1900, B.A., 1902  
 Hay, Mary Catherine, B.A., 1897  
 Hayes, David John, B.A., 1894  
 Hayley, Percy E. L., B.E., 1893  
 Healy, Patrick J., M.A.  
 Hedberg, John Alfred, B.A., 1896  
 Heden, Ernest Charles B., B.A., 1898, B.Sc., B.E.  
 Helsham, Chas. Howard, B.A., 1892  
 Henderson, G. Cockburn, B.A., 1893  
 Henderson, Robert Newburn, B.A., 1895  
 Henry, Ada, B.A., 1900  
 Henry, Arthur, M.B., Ch.M.  
 Henry, Arthur G., M.B., Ch.M.  
 Henry, Ida Emily, B.A., 1902  
 Higgins, Frederick Charles, M.B., Ch.M.  
 Higgins, Michael A., B.A., 1879  
 Higgins, Percy Reginald, B.A., 1893, LL.B.  
 Hill, Evelyn M., B.A., 1895  
 Hill, George Arthur, M.A.  
 Hill, James Henry Fraser, B.A., 1900  
 Hill, James P., D.Sc., F.L.S.¶  
 Hill, John Goodwin Watson, B.A., 1901  
 Hill, Thomas, M.A.  
 Hilliard, Arthur Vaughan, B.A., 1890  
 Hills, Henry H., M.A.  
 Hinder, Henry V.C., M.B., Ch.M.¶  
 Hinder, Robert John, B.A., 1889  
 Hinder, W. Septimus, D.D.S.¶  
 Hinton, William Samuel, B.A., 1902  
 Hipsley, Alice Ellen, B.A., 1898  
 Hipsley, Percy Leslie, M.B., Ch.M.  
 Hobbs, Edwin, B.A., 1897  
 Hobbs, John William, B.A., 1894  
 Hodge, Ernest Arthur, B.A., 1895  
 Hodge, Sydney Trevillian, B.A., 1902, LL.B.  
 Hodgkins, Amy Alice, B.A., 1895 (Mrs. James)

Hodgson, Evelyn G., M.A.‡  
 Hogg, James E., M.A.‡  
 Hogg, Kate Emily, B.A., 1894  
 Hole, William Francis, B.E., 1896  
 Holliday, Andrew, B.A., 1898, LL.B.  
 Holme, Ernest Rudolph, B.A., 1891¶  
 Holme, John Barton, B.A., 1893, LL.B.  
 Holmes, Harry Glennie, M.B., Ch.M.  
 Holmes, William Fredk., B.A., 1894  
 Holt, Arthur Christian, B.A., 1895, M.B.  
 Holt, Edith Jane Katherine, B.A., 1902  
 Holt, Wilfrid John, M.A.  
 Hood, Dannina, B.A., 1894 (Mrs. Lanfear)  
 Hopkins, Francis Irvine, B.A., 1893  
 Hopman, John Henry, B.A., 1894  
 Horniman, Alexander, B.A., 1866  
 Horton, Marion Charlotte, B.Sc., 1897 (Mrs. White)  
 Houison, Andrew, B.A., 1869  
 Houison, James, B.A., M.D.  
 Houison, Stephen James, B.A., 1898  
 Howard, John Bruton, B.A., 1895  
 Hudson, William, M.A.  
 Huggart, Alfred Theodore, B.A., 1892  
 Huggart, William Charles, B.A., 1898  
 Hughes, Charles Michael, B.A., 1886  
 Hughes, Hugh Jason, B.A., 1897  
 Hughes, James O'Donoghue A., B.A., 1894  
 Hughes, Michael O'Gorman, B.A., 1890, B.Sc., M.B.  
 Humphery, Esca Morris, M.B., Ch.M.  
 Hungerford, Hedley Heber, B.A., 1886  
 Hunt, Claude L. W., M.B., Ch.M.  
 Hunt, Digby St. Clair W., B.A., 1895  
 Hunt, Fanny E., B.Sc., 1888  
 Hunt, Hugh Alton Stanislaus, B.A., 1897  
 Hunter, John, M.A.  
 Hunter, Mary Alison Miles, B.A., 1895  
 Hunter, Thomas Brown, B.A., 1898  
 Hunter, William Allen, M.B., 1902  
 Hurst, George, M.A.

‡ Admitted *ad eundem gradum*.

¶ Public Teacher.

Hutchinson, George Thos., B.A., 1900

Hynes, Sarah, B.A., 1891

Ioeton, Edward Arthur, M.A.

Ioeton, Thomas Henry, M.A.

Jack, Robert Lockhart, B.E., 1899

Jackson, Clements F. V., B.E., 1895

Jackson, Frederick Charles, B.A., 1897

Jackson, Henry Latimer, M.A.‡

Jackson, John Wm., M.B., Ch.M.

Jackson, Robert, M.A.

Jacobs, James, B.A., 1894

James, Arthur Henry, B.A., 1893

James, Augustus G. F., B.A., 1888

James, George Alfred, B.A., 1893

James, Thomas, B.A., 1896

James, William Edwin, M.A.

Jamieson, George Wellington, B.A., 1893

Jamieson, Sydney, B.A., 1884¶

Jarman, Arthur, A.R.S.M.¶

Jarrett, Marjorie Kate, B.A., 1901

Jarvie, Bennie, B.A., 1898.

Jefferis, James, LL.D.

Jenkins, Charles J., B.A., 1887

Jenkins, Charles Warren B., B.E., 1895

Jenkins, E. J., M.D.‡†

Jensen, Klio, M.A.

Johnson, James William, M.A.

Johnson, Martin Luther, B.A., 1893

Johnston, Alexander W., M.A.

Johnston, Ella Russell, B.A., 1890  
(Mrs. Martin)

Johnston, John, B.A., 1887

Johnston, Mary Eleanor B.A., 1896

Johnston, Stephen Jason, B.A., 1894  
B.Sc.

Johnstone, Henry T., B.A., 1885

Jones, Albert E., LL.B., 1889‡

Jones, Cortis Harry Frederick, M.A.

Jones, Ernest Trevor, B.A., 1884

Jones, G. E. Russell, M.A.

Jones, P. Sydney, M.D.††

Jones, Philip Sydney, M.B., Ch.M.

Jones, Rees Rutland, M.A.

Jones, Richard Theophilus, M.D.

Jones, Thomas, B.A., 1895

Jones, Thomas E., B.A., 1884

Jordan, George Edward Gustavus,  
B.Sc., 1901

Joseph, Horace B., B.A., 1887

Kater, Norman William, M.B., Ch.M.

Kay, Robert, M.A.

Kay, Stuart, M.B., Ch.M.

Kellett, Frederick, M.A.

Kelly, Patrick J., M.B., 1889

Kelynack, Arthur James, B.A., 1889,  
LL.B.

Kelynack, Harold Leslie, B.A., 1893

Kemmis, William Henry, B.A., 1890

Kemp, L. Mildred King, B.A., 1902

Kemp, Richard Edgar, M.A.

Kendall, Frank Louis, B.A., 1893

Kendall, Theodore M., B.A., 1876

Kenna, Patrick J., B.A., 1882

Kennedy, Annie Augusta, B.A.,  
1893 (Mrs. Atkins)

Kennedy, Emily Clara, B.A., 1895

Kennedy, Philip, M.A.

Kent, Fredk. Deacon, M.A.

Kent, Harry Chambers, M.A.

Kershaw, Joseph Cuthbert, B.A.,  
1894, LL.B.

Kidston, Robert Matthew, B.A., 1892

Kilgour, Alexander James, B.A.,  
1894, LL.B.

King, Aubrey Arthur, M.B., Ch.M.

King, Cecil J., M.A.

King, Copland, M.A.

King, Frederick Hart, M.A.

King, George C., B.A., 1887

King, R. W., B.A., 1884‡

King, Walter U. S., M.A.

Kinross, John, B.A., 1869

Kinross, Robert Menzies, B.A., M.B.,  
Ch.M.

Klein, James Augustus, B.A., 1897

Knaggs, Saml. Thos., M.D.‡

Knox, Adrian, LL.B., 1895‡

Knox, Edward William†

Knibbs, George H., L.S.¶

Knight, Arthur, B.A., 1894

Laby, Thomas H.¶

Lafferty, Terence Matthew, B.A.,  
1899

Lamrock, Arthur Stanton, B.A., 1891

Lancaster, Llewellyn Bentley, M.B.,  
Ch.M.

‡ Examiner.

† Fellow of the Senate.  
‡ Admitted *ad eundem gradum*.

¶ Public Teacher.

Lance, Elisabeth Ada, M.A.  
 Lander, William H., M.A.  
 Lane, Frederick George, B.A., 1895  
 Lang, John Gavin, M.A.  
 Langley, Isabella E., B.A., 1897  
 Langton, Frederick W., B.A., 1887  
 Langton, William Digan, M.B., Ch.M.  
 Larcombe, Ernest Richard, B.A., 1902  
 Larkins, Frank Joseph Moore, B.A., 1902  
 Lasker, Samuel, M.A.  
 Lawes, Charles Herbert Essery, M.B., Ch.M.  
 Layton, John Edward, B.A., 1898  
 Leahy, John Patrick Daunt, B.A., M.B., Ch.M.  
 Ledger, William Henry, B.E., 1893  
 Lee, Henry Herbert, M.B., Ch.M.  
 Lee, Herbert Ernest, B.A., 1886  
 Lee, Thomas Nelson, B.A., 1899  
 Lee, William, M.A.  
 Lees, Geoffrey John, M.B., 1900  
 Legge, J. Gordon, M.A., LL.B.  
 Leibius, G. Hugo, B.A., 1888  
 Lenthall, Ellen Melicent, B.A., 1893  
 de Lepervanche, Eustace Mèzières, B.A., 1900  
 Leslie, James Robert, M.B., Ch.M.  
 Lethbridge, Harold Octavius, M.B., Ch.M.  
 Leverrier, Frank, B.A., 1884, B.Sc.¶  
 Levy, Daniel, B.A., 1893, LL.B.  
 Lewis, Henry Clyde, B.A., 1893  
 Lichtscheindl, Rose, B.A., 1894 (Mrs. Innes)  
 Liddell, Andrew Innes, M.A.  
 Liggins, Jessie Hunsdon, B.A., 1899  
 Lingen, John Taylor, M.A.¶  
 Linsley, Wm. H., B.A., 1880  
 Lipcomb, Thomas Walter, M.B., Ch.M.  
 Lister, Henry, M.B., 1892  
 Litchfield, W. Frederick, M.B., 1893  
 Littlejohn, Edward S., B.A., 1887  
 Liversidge, Archibald, M.A., LL.D., F.R.S.¶  
 Llewellyn, Rees Frank, M.B., 1902  
 Lloyd, Frederick, M.D.  
 Lloyd, Thomas, B.A., 1878

Lomer, Caroline, M.A. (Mrs. Vidler)  
 Louis, Philip Herbert, M.A.  
 Loxton, Edward James, M.A.  
 Ludowici, Edward, M.B., Ch.M.  
 Luker, Donald, M.B., Ch.M.  
 Lukin, Gresley W. H., M.A.  
 Lyden, Michael J., M.D.¶  
 Lydon, James, B.A., 1894  
 Lyle, T. R., M.A.†  
 Lynch, Michael D., B.A., 1870  
 Lynch, William, B.A., 1863  
 Lyon, Pearson, B.A., 1890  
 Macanish, Andrew W., B.A., 1885  
 MacCallum, Mungo W., M.A.¶†  
 Macarthy, Herbert T. S., B.A., 1860  
 McCarthy, Arthur W., B.A., 1881  
 McClelland, Hugh, B.A., 1881  
 McClelland, Walter Cecil, B.Sc., M.B., Ch.M.  
 McCook, Adam Stuart, B.A., 1895  
 McCook, William Henry, B.A., 1900  
 MacCormick, Alex., M.D.¶¶  
 McCoy, William Taylor, B.A., 1894  
 MacCreadie, John Laing M., M.B., Ch.M.  
 McCredie, Robert William, M.B., Ch.M.  
 McCulloch, Percy V., B.A., 1881  
 McCulloch, Stanhope H., M.B., Ch.M.†  
 McDermott, Vesian B., B.A., 1887  
 McDonagh, John M., B.A. 1879  
 Macdonald, Fanny Elizabeth, B.A., 1895  
 Macdonald, James M., M.A.  
 Macdonald, Louisa, M.A.¶¶  
 McDonnell, Aeneas J., M.D., Ch.M.  
 McDonnell, Randall C. W., B.A., 1888  
 McDowall, James, M.A.  
 McEncroe, Jas. Michael, M.B., Ch.M.  
 McEvelly, Augustus, B.A., 1886  
 McEvelly, Ulric, B.A., 1883  
 McEvoy, Bertie Patrick, B.A., 1899  
 McEvoy, John Joseph Stuart, M.B., 1900  
 McGuinn, Denis, B.A., 1884  
 MacInnes, Angus, B.A., 1901  
 Macintosh, Alexander Hay, M.B., Ch.M.

‡ Examiner.

¶ Public Teacher.

† Fellow of the Senate.

‡ Admitted *ad eundem gradum*.

|| Head of College.

McIntosh, Harold, B.A., 1889  
 McIntyre, Aug. T., B.A., 1879  
 McIntyre, Duncan A., B.A., 1888  
 Mack, Sidney, B.A., 1890, LL.B.  
 Mack, Augustus Charles, B.E., 1902  
 McKay, James, B.A., 1896  
 McKay, William J. Stewart, B.Sc.,  
 M.B., Ch.M.  
 Mackenzie, John, M.B., Ch.M.  
 Mackinnon, Roger R. S., M.B.,  
 Ch.M.  
 Mackintosh, Bertha Adeline Hilda,  
 B.A., 1899  
 Mackness, Constance, B.A., 1902  
 Maclardy, J. D. S., M.A.  
 McLaren, Alexander Duncan, M.A.,  
 LL.B.  
 McLaren, John Gilbert, B.A., 1895  
 McLaughlin, Daniel, B.A., 1890  
 MacLaurin, Hon. Sir Henry  
 Normand, M.A., M.D., LL.D.†  
 MacLaurin, Henry Normand, B.A.,  
 1899.  
 Maclean, Charles Hector Roderick,  
 B.A., 1901  
 Maclean, Fredk. S., B.A., 1887  
 McLean, George, M.B., Ch.M.  
 McLeod, James, B.A., 1879  
 McLintock, Colin Scott, B.A., 1900  
 McMahon, Gregan, B.A., 1896  
 MacManamey, James Frazer, B.A.,  
 1881  
 MacManamey, John Frazer, B.A.,  
 1889  
 MacManamey, William Frazer, B.A.,  
 1892  
 MacMaster, Donald Æneas D., B.A.,  
 B.Sc., M.B., Ch.M.  
 MacMullen, Frank, M.A.  
 McMurray, Wahab, M.D.‡  
 Macrossan, Hugh Denis, B.A.,  
 1902  
 McNeil, Andrew, B.A., 1889  
 McNevin, Arthur Joseph, B.A., 1895  
 McNevin, Thomas Butler, B.A.,  
 1893  
 MacPherson, John, M.A., B.Sc.,  
 M.B., Ch.M.  
 MacPherson, Peter, B.A., 1889  
 MacTaggart, A. H., D.D.S.¶

MacTaggart, John Norman C., M.E.  
 Madsen, John Percival Viissing, B.Sc.,  
 1900, B.E.  
 Maffey, Reginald William H., B.A.,  
 1896, M.B.  
 Magarey, Frank W. A., M.D.,  
 Ch.M.  
 Maher, Charles H., B.A., 1877  
 Maher, Matthew E., B.A., 1867  
 Maher, Thomas Francis, B.A., 1893  
 Maher, W. Odillo, M.D.‡†  
 Main, John, B.A., 1892  
 Maitland, Herbert Lethington, M.B.,  
 Ch.M.  
 Makin, William, B.A., 1902  
 Mallarkey, Ethel May, B.A., 1895  
 Maloney, Andrew William, B.A.,  
 1893  
 Maloney, John Thomas, B.A., 1899  
 Mann, William J. G., M.A.  
 Mannell, Francis Worthington, B.A.,  
 1892  
 Manning, Henry Edward, B.A., 1900,  
 LL.B.  
 Manning, James N., M.A., LL.D.  
 Manning, Reg. K., B.A., 1887  
 Manning, William Alexander, M.A.  
 Manning, W. Hubert, M.A.  
 Manning, William Ernest, B.A.,  
 1892  
 Marden, John, LL.D.  
 Marks, Hyam, B.A., 1892  
 Marks, Florence, B.A., 1893  
 Marks, Leah, B.A., 1893  
 Marks, Percy J., B.A., 1887  
 Marr, Fannie Augusta, B.A., 1899  
 Marr, Gordon William Singer, M.B.,  
 1901  
 Marrack, Jno. Rea M., M.A.  
 Marsden, Ernest Ambrose, M.B.,  
 Ch.M.  
 Martin, Lewis Ormsby, B.A., 1893,  
 LL.B.  
 Martyn, Sydney Charles, B.A., 1889  
 Massie, Richard de Winton, B.A.,  
 1886  
 Mate, William H., B.A., 1864  
 Mathews, Hamilton Bartlett, B.A.,  
 1899  
 Mathison, Walter, B.A., 1880

‡ Examiner.

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.

† Fellow of the Senate.



- Mathison, Walter Charter, B.E., 1899  
 Mawson, Douglas, B.E.  
 Mawson, William, M.B., Ch.M.  
 Maxwell, Henry Francis, B.A., 1895  
 Maxted, Henry Louis, B.A., 1902  
 Maynard, Ethel Margaret, B.A., 1894 (Mrs. Peden)  
 Mayne, Wm. M., M.A.  
 Mayne, J. O'Neill, B.A., 1884  
 Maze, William A. A., B.A., 1892  
 Meagher, Louis Felix, B.A., 1889  
 Meares, Hercules, B.A., 1893, LL.B.  
 Meares, Matilda, M.A.  
 Meillon, John, M.A., LL.B.  
 Meillon, Joseph, B.A., 1863  
 Mell, Cecil Newton, B.A., 1894  
 Menzies, Guy Dixon, M.B., Ch.M.  
 Merewether, E. A. M., B.A., 1884, B.E.  
 Merewether, Hugh H. M., B.A., 1894, LL.B.  
 Merewether, Walton L., M.A.  
 Merewether, William D. M., B.A., 1895, LL.B.  
 Merrington, Ernest Northcroft, M.A.  
 Metcalfe, George, M.A.  
 Miles, James Albert, B.A., 1894  
 Millard, Alfred C., B.A., 1885  
 Millard, Godfrey William, M.A.  
 Millard, Reginald J., M.B., Ch.M.  
 Miller, James W., B.A., 1896  
 Miller, Richard, B.A., 1885  
 Mills, Arthur E., M.B., Ch.M.†  
 Mills, Elsie Ada Harland, M.A.  
 Mills, Percy Harcourt, B.A., 1893, LL.B.  
 Mitchell, David Scott, M.A.  
 Mitchell, Ernest Meyer, B.A., 1896, LL.B.  
 Mitchell, Ethel Robertson, B.A., 1898  
 Molineaux, Amy Atherton, B.A., 1891  
 Moloney, Thom. P., B.A., 1885  
 Molster, Eliza, B.A., 1893 (Mrs. Dowe)  
 Molster, Sarah, M.A.  
 Monaghan, John Graham, M.A.  
 Monahan, William Willis, B.A., 1897, LL.B.  
 Moncrieff, Edward Woods, M.B., Ch.M.  
 Monnington, Alfred, M.A.‡  
 Montague, James H., M.A.  
 Montefiore, Hortense Henriette, B.A., 1896  
 Montgomerie, John, B.A., 1889  
 Moore, David C., B.A., 1883  
 Moore, Frank Joseph S., B.A., 1883  
 Moore, George, M.D.  
 Moore, John, B.A., 1883  
 Moore, Samuel, M.A.  
 Moore, Verner, B.A., 1884  
 Moore, Walter Albert, B.A., 1894  
 Moors, E. M., M.A.¶  
 More, George Allan, B.E., 1901  
 Morgan, Fredk. A., B.A., 1888  
 Morgan, Thos. H. D., B.A., 1892  
 Morrice, John, B.A., 1874  
 Morris, John Fossbrook, B.E., 1899  
 Morris, John James, B.A., 1895  
 Morris, Robt. N., B.A., LL.D.  
 Morrish, Francis, B.A., 1882  
 Mort, Harold Sutcliffe, B.Sc., 1901  
 Mort, H. Wallace, M.A.‡  
 Mort, Selwyn Robert, B.E., 1900  
 Morton, Gavin, M.B., Ch.M.  
 Morton, John, M.B., Ch.M.¶  
 Morton, Selby, M.D.  
 Mote, Arnold Rudolph, B.A., 1902  
 Moulton, James E., B.A., 1892  
 Moustaka, Orea Emma Hellas, B.A., 1897 (Mrs. Beatty)  
 Mulholland, John Joseph, B.A., 1899  
 Mullens, Arthur Frank Macquarie, B.A., 1896  
 Mullins, George Lane, M.D.‡  
 Mullins, John Lane, M.A.  
 Munro, Wm. J., B.A., 1880, M.D.‡  
 Murray, Charles Edward Robertson, M.A.  
 Murray, Donald, M.A.  
 Murray, Florence Jane, M.A. (Mrs. Armitage)  
 Murray, George Lathrop, M.B., Ch.M.  
 Murray, Mercy M. H., B.A., 1897  
 Muscio, Allan, M.B., 1902  
 Musmann, Carl Ernst Gottlieb, B.A., 1897  
 Mutton, Isaiah, B.A., 1900  
 Myers, David M., B.A., 1866

† Admitted *ad eundem gradum*.

¶ Public Teacher.

‡ Examiner.

Myers, Harold Walter, B.E., 1901  
 Nardin, Ernest Willoughby, B.E., 1894  
 Nash, John Brady, M.D.‡  
 Nathan, Edward Alleyne, M.A., LL.B.  
 Nelson, Duncan John, B.A., 1895  
 Nettleship, Edward, B.A., 1895  
 Newham, Arthur, B.A.¶  
 Newman, George Hine, B.A., 1887  
 Newman, James Malcolm, B.E., 1901  
 Newman, Kelsey Illidge, B.A., 1894  
 Newsham, Alice Isabel, B.A., 1900  
 Newton, Alice Sarah, M.B., Ch.M. (Mrs. Newton-Tabrett)  
 Newton, Henry, B.A., 1889  
 Newton, William Thomas Joseph, M.B., 1900  
 Nicholls, William Hunt Ward, B.A., 1891  
 Nicholson, George Gibb, B.A., 1899¶  
 Noake, Reginald, B.A., 1877  
 Noakes, Mabel Alicia, B.A., 1896 (Mrs. Stonham)  
 Noble, Edmund Murray, M.A.  
 Nolan, John Henry Monteith, M.A.  
 Nolan, Herbert Russell, M.B., Ch.M.  
 Norton, Hon. James, LL.D.\*  
 O'Brien, Agnes Gertrude, B.A., 1895  
 O'Brien, Francis, M.A.  
 O'Brien, The Right Rev. Monsignor Jas. J., D.D.¶  
 O'Brien, Kathleen Moira, B.A., 1894  
 O'Brien, Lucius, B.A., 1865  
 O'Brien, Ormond, B.A., 1876  
 O'Brien, Patrick Daniel, B.A., 1894, LL.B.  
 O'Connor, Arthur Charles, M.B., Ch.M.  
 O'Connor, Hon. Mr. Justice R. E., M.A.†  
 O'Connor, Broughton B., B.A., 1892, LL.B.  
 O'Donohue, John P. Markham, B.A., 1895, LL.B.  
 Old, George Greensil, M.B., 1900  
 Oliver, James, M.A.  
 Olver, William Reath, M.B., Ch.M.  
 Oram, A. Murray, M.D.‡

O'Keefe, John A., B.A., 1887  
 O'Keefe, John James, M.B., 1898  
 O'Mara, Michael, M.A.  
 O'Neill, James Bernard, B.A., 1895  
 O'Reilly, Hubert de Burgh, B.A., 1892, LL.B.  
 O'Reilly, Walter William Joseph, M.D.‡  
 Osborne, Henry Stuart, B.A., 1896  
 Osborne, John King, M.B., Ch.M.  
 O'Sullivan, Daniel Roche, B.A., 1901  
 O'Sullivan, Eugene Francis, B.A., 1901  
 Page, Arthur Ernest, B.A., 1899  
 Page, Earle Christmas Grafton, M.B., Ch.M.  
 Pain, Allan Franklyn, B.A., 1894  
 Pain, A. W., B.A., 1884‡  
 Pain, Ernest Maynard, M.B., Ch.M.  
 Paine, Bennington Haille, B.A., 1893  
 Paine, George Henry, B.A., 1894  
 Palmer, Selina Elizabeth, B.A., 1903  
 Palmer, Thomas Henry, B.E., 1898  
 Paris, Jane Elizabeth, B.A., 1897  
 Parish, Walter G., M.A.  
 Park, Joseph, M.B., Ch.M.  
 Parker, Wm. A., B.A., 1892, LL.B.  
 Parsons, Emily Waugh, B.A., 1899  
 Parsons, Joseph, M.A.  
 Paton, Arthur T., B.A., 1887  
 Paton, Mary Paterson, B.A., 1902  
 Pattinson, Anthony Walton, B.A., 1894  
 Paxton, Betha, M.A.  
 Peden, John B., B.A., 1892, LL.B.¶  
 Penman, John Edwards Foggon, B.A., 1897  
 Perkins, Alfred Edward, M.A., M.B., Ch.M.‡  
 Perkins, Frederick Thomas, M.A.  
 Perkins, Joseph A. R., B.A., 1892  
 Perkins, Richard, M.B., Ch.M.  
 Perry, John, M.A.  
 Perské, Hermann, B.A., 1887  
 Peterson, Arthur James, B.Sc., 1901  
 Petrie, Edith Maud, B.A., 1901  
 Petrie, James Matthew, D.Sc.  
 Phillips, Catherine Agnes, B.A., 1896  
 Phillips, Arthur Bradridge, M.B., Ch.M.

† Fellow of the Senate.

‡ Examiner.

\* Superior Officer.

‡ Admitted *ad eundem gradum*

¶ Head of College.

¶ Public Teacher.

- Phillips, Frederick George, B.A., 1902  
 Phillips, Reginald Bede, B.A., 1902  
 Pickburn, James P., B.A., 1892, LL.B.  
 Piddington, Albert Bathurst, B.A., 1883  
 Piddington, Francis Llewellyn, B.E., 1898  
 Pike, George H., M.A.  
 Pilcher, George de Vial, B.A., 1859  
 Pilcher, Charles E., B.A., 1865  
 Pilcher, Norman George Stafford, B.A., 1898, LL.B.  
 Pincombe, Torrington Hawke, B.A., 1890  
 Pitt, Arthur Gladstone Matcham, B.A., 1902  
 Plomley, Francis James, M.A.  
 Plomley, Morris James, M.B., Ch.M.  
 Plume, Henry, M.A.‡  
 Pockley, Eric Osbaldiston, M.B., Ch.M.  
 Pockley, F. Antill, M.B., 1888‡¶  
 Pockley, Norman V., D.D.S.¶  
 Poidevin, Leslie Oswald Sheridan, B.A., 1900  
 Pollock, James Arthur, D.Sc.¶  
 Poole, William, B.E., 1900  
 Poolman, Arthur Edward, B.A., 1883  
 Pope, Roland J., B.A., 1885  
 Potts, Cuthbert, B.A., 1898  
 Powell, Theodore, M.A.  
 Power, F. Danvers¶  
 Power, John Wardell, M.B., Ch.M.  
 Power, Percy Horne, B.A., 1901  
 Pratt, Frederick V., M.A.  
 Pratt, Walter Henry, B.A., 1901  
 Prentice, Arthur J., B.A., 1892  
 Pring, Robert Dorlow, M.A.  
 Pritchard, Alice, B.A., 1895  
 Pritchard, Wm. Clowes, B.A., 1888  
 Proctor, Lizzie, M.A. (Mrs. Cocks)  
 Pulleine, Robert Henry, M.B., 1898  
 Purcell, Philip Francis, B.A., 1898  
 Purcell, Winifred Dalton, B.A., 1895  
 Purser, Cecil, B.A., M.B., Ch.M.  
 Purves, John Mitchell, M.A.  
 Quaife, Frederick Harrison, M.A.  
 Quaife, William F., B.A., 1879  
 Quick, Sir John, LL.B., 1881‡  
 Quigley, James, B.A., 1890  
 Ralston, Alexander G., M.A.  
 Ramsay, James, B.A., 1885  
 Raves, George Alfred, B.A., 1897  
 Raves, Helen Alice, B.A., 1894  
 Read, Elizabeth Jane, B.A., 1899  
 Read, William Henry, M.B., Ch.M.  
 Reading, R. Fairfax, M.R.C.S., L.D.S.¶  
 Redshaw, George, B.A., 1895  
 Rees, Walter Llewellyn, M.B., Ch.M.  
 Reid, Norman, B.E., 1898  
 Reid, Violet Margaret, B.A., 1902  
 Reidy, John Jas. Gralton, B.A., 1896  
 Rennie, Edward Henry, M.A.‡  
 Rennie, George E., B.A., 1882¶  
 Renwick, Hon. Sir Arthur, B.A., 1857, M.D.†  
 Renwick, Herbert John, B.A., 1893  
 Reynolds, Arthur J. P. G., B.A., 1890  
 Reynolds, Reginald Blair, M.A.  
 Rich, George E., M.A.¶  
 Richards, Samuel J., M.B., Ch.M.  
 Richardson, Charles Noel Derwent, B.A., 1893, LL.B.  
 Richardson, Henry A., B.A., 1867  
 Rigg, Thomas, M.A.  
 Riley, Ernest Arthur, M.A.  
 Riley, Patrick William, B.A., 1894  
 Riley, Spencer George Birkenhead, B.A., 1897  
 Riley, Valentine B., B.A., 1872  
 Roberts, Alfred John Spencer Cecil, M.B., Ch.M.  
 Roberts, James W., B.E., 1892  
 Robertson, Joseph, M.A.  
 Robinson, Charles H. P., B.A., 1893  
 Robinson, George Frederick Greenwell, B.A., 1890  
 Robinson, Grace Fairley, M.B., Ch.M. (Mrs. Boelke)  
 Robinson, Mabel Fuller, B.A., 1890 (Mrs. Windeyer)  
 Robjohns, Henry T., M.A.  
 Robjohns, Leonard, B.A., 1894  
 Robson, Wm. Elliott Veitch, B.A., 1889

† Fellow of the Senate.

‡ Examiner.

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.

- Robson, Reginald Norman, B.A., 1900, LL.B.  
 Roe, James Martin, M.B., 1900  
 Rofe, John F., M.A.  
 Rogers, Francis Edward, M.A., LL.B.†  
 Rolin, Tom, M.A.  
 Rooney, William J., B.A., 1892  
 Roseby, Edmund Rupert, M.B. Ch.M.  
 Roseby, Gertrude Amy, B.A., 1895  
 Roseby, Minnie, B.A., 1895  
 Roseby, Sarah Mabel, B.A., 1900  
 Roseby, Thomas, M.A., LL.D.  
 Roseby, Thomas Ernest, M.A.  
 Ross, Chisholm, M.D.¶  
 Ross, Colin John, B.E., 1891 §  
 Ross, William John Clunies, B.Sc., 1891 §  
 Rossiter, Florence Annie, B.A., 1898  
 Roth-Schmidt, Frederica, B.A., 1897  
 Rourke, Ernest John, B.A., 1893  
 Rourke, George Augustus, B.A., 1893  
 Rourke, Lillie Agnes, B.A., 1895  
 Rowan, Thomas, M.D.  
 Rowland, Norman de Horne, B.A., 1895  
 Rowlands, Harold Berkeley, B.E., 1897  
 Rudder, Sydney Llewellyn, B.A., 1891  
 Russell, Charles Townsend, B.A., 1891  
 Russell, Edward, M.A.  
 Russell, Ethel Albinia, B.A., 1893  
 Russell, Francis Alfred Alison, M.A.  
 Russell, Harry A., B.A., 1887  
 Russell, Henry Chamberlaine, B.A., 1859, C.M.G., F.R.S.†  
 Russell, Jane Foss, M.A. (Mrs. Barff)  
 Russell, John F. S., M.A.  
 Russell, Lillian, B.A., 1891 (Mrs. King)  
 Russell, William, M.A.  
 Rutherford, Florence Marion, B.A., 1900  
 Rutherford, George Washington, B.A., 1900, LL.B.
- Rutledge, David Dunlop, M.A., M.B., Ch.M.  
 Rutledge, William F., B.A., 1871  
 Ryan, Gerald, B.A., 1893  
 Ryan, James William, B.A., 1901  
 Rygate, Chas. D. H., B.A., 1883  
 Rygate, Henry B., B.A., 1885  
 Rygate, Philip William, M.A., B.E.  
 Saddington, Arthur G., B.A., 1887  
 Sadler, Alexander, B.A., 1900  
 Salting, George, B.A., 1857  
 Salting, William S., B.A., 1857  
 Sandes, Francis Percival, M.D., Ch.M.¶  
 Sandford, Blanche Vavasour, B.A., 1902  
 Sands, Jno. Marshall, B.A., 1889  
 Saunders, Arthur, B.A., 1893  
 Saunders, Eva Florence, B.A., 1897  
 Savage, Vincent Wellesley, M.B., Ch.M.  
 Savage, Edward Joseph, M.B., Ch.M.  
 Sawkins, Dansie Thomas, M.A.  
 Sawkins, Frederick John T., M.B., Ch.M.  
 Sawyer, Basil, B.E., 1896  
 Saxby, George Campbell, B.A., 1891  
 Saywell, Thomas Stanley, B.A., 1900 LL.B.  
 Scarvell, Edric Sydney, B.A., 1893, LL.B.  
 Schofield, James A., A.R.S.M., F.C.S.¶  
 Soot-Skirving, Robert, M.B., 1888 §¶  
 Scott, Edward Henry, M.B., Ch.M.  
 Scott, Ernest Kilburn, M.I.E.E., A.M. Inst. C.E.¶  
 Scoular, David, B.A., 1895, LL.B.  
 Scrutton, Caroline Maude, B.A., 1900  
 Seale, Herbert Percy, B.E., 1894  
 Seaward, William T., B.A., 1892  
 Seldon, Florence Mary, B.A., 1894 (Mrs. Stobo)  
 Seldon, William, M.B., 1902  
 Sellors, Richard P., B.A., 1890  
 Sendall, Alfred E., B.A., 1888  
 Serisier, Lavigne Ernest, B.A., 1891  
 Shand, Alexander B., B.A., 1884  
 Shaw, Frederick C. S., M.B., Ch.M.  
 Shaw, Henry Giles, M.A.

† Fellow of the Senate.

§ Admitted *ad eundem gradum*.

¶ Public Teacher.

- Shaw, John A. K., B.A., 1865  
 Sharp, Granville Gilbert, B.Sc., M.B., Ch.M.  
 Sharp, Rev. Canon W. Hey, M.A.¶§  
 Sharp, Walter Alexander Ramsay, B.A., M.B., Ch.M.  
 Sharpe, Ernest, B.A., 1866  
 Sharpe, William George, B.A., 1897  
 Sheldon, Herbert, M.B., Ch.M.  
 Sheldon, Stratford, B.Sc., M.B., Ch.M.  
 Shellshear, Cyril, M.B., Ch.M.  
 Sheppard, Arthur Murray, M.B., Ch.M.  
 Sheppard, Edmund Haslewood, B.A., 1882  
 Sheppard, George, B.A., 1873  
 Sheridan, Francis B., B.A., 1874  
 Sheridan, John Patrick, B.A., 1890  
 Sheridan, Muriel Eulalie Bingham, B.A., 1900  
 Sherlock, John Bolt, B.A., 1895  
 Shewcroft, Alfred John, B.A., 1893  
 Shirley, John, B.Sc., 1887§  
 Shirlow, Syd. S., M.B., Ch.M.  
 Shirlow, Wm. J., M.B., Ch.M.  
 Shorter, Herbert Leopold Ashton, M.B., 1899  
 Simpson, Hon. Mr. Justice Archibald Henry, M.A.†  
 Simpson, Edward S., B.E., 1896  
 Simpson, Francis G. M., M.B., Ch.M.  
 Sinclair, Colin Archibald, B.A., 1899, LL.B.  
 Sinclair, Eric, M.D.†  
 Slack, Ida Leslie, M.A.  
 Slee, Richard Thilthorpe, B.E., 1901  
 Sloman, C. Wansbrough, B.A., 1893  
 Sloman, John, B.A., 1872  
 Sly, George J., M.A., LL.D.  
 Sly, Joseph D., M.A., LL.D.  
 Sly, Richard Meares, M.A., LL.D.  
 Smail, Herbert Stewart Inglis, B.E., 1897  
 Smairl, Joseph Henry, M.A.  
 Small, Ethel Ella, M.A.  
 Smee, Reginald, B.A., 1901  
 Smith, Archibald, B.A., 1889  
 Smith, Emma Isabel, B.A., 1893  
 Smith, Grafton Elliott, M.D., Ch.M.  
 Smith, Norman, B.A., 1894  
 Smith, Percy Edward Walton, M.B., Ch.M.  
 Smith, Robert, M.A.  
 Smith, Stewart Arthur, M.B., Ch.M.  
 Smith, William S., M.A.  
 Smith, William, B.A., 1902  
 Smith, William Michael, M.A.  
 Smyth, Frank L. S., M.A.  
 Somerville, George B., B.A., 1882  
 Spark, Ernest J. T., M.B., Ch.M.  
 Spier, Reginald Vincent, B.E., 1902  
 Squire, Hilton Bell, B.A., 1893  
 Stack, John, M.A.  
 Stacy, Fitzroy Somerset, B.A., 1897, LL.B.  
 Stacy, Harold Skipton, M.D., Ch.M.  
 Stanley, Frederick Vernon, B.E., 1902  
 Stanley, George P., M.B., Ch.M.  
 Steel, Robert, M.A.  
 Stephen, Cecil Bedford, M.A.†  
 Stephen, Edgar Horatio Milner, M.B., Ch.M.  
 Stephen, Edward Milner, B.A., 1891  
 Stephen, Henry Montagu, B.A., 1900, LL.B.  
 Stephen, John Wm. Farish, B.A., 1897  
 Stephens, Charles T., B.E., 1892  
 Stephenson, Anita Leila, B.A., 1901  
 Stephenson, John Hunter, M.A.  
 Stevens, Wm. Woodburn, M.B., Ch.M.  
 Stewart, Alexander Hay, B.E., 1902  
 Stewart, Charles, M.D.  
 Stewart, Donald Grant, B.A., 1896  
 Stokes, Edward S., M.B., Ch.M.  
 Stoney, Edmund Highton, B.A., 1898  
 Stonham, John, M.A.  
 Stonham, Kathleen, B.A., 1895  
 Stoyles, Herbert George, M.A.  
 Street, Charles James, B.A., 1894  
 Street, Philip Whistler, B.A., 1883  
 Strickland, Tom Percival, B.E., 1897  
 Stuart, T. P. Anderson, M.D., LL.D.†¶§  
 Stuckey, Francis Seavington, M.B., Ch.M.  
 Studds, Harold Augustus, B.A., 1900  
 Studdy, Albert J., B.A., 1888

† Fellow of the Senate.

‡ Examiner.

¶ Public Teacher.

§ Admitted *ad eundem gradum*.

|| Head of College.

Studdy, Annie Avice Matilda, B.A., 1898

Studdy, William B., M.B., Ch.M.

Suckling, Frank Martin, M.B., Ch.M.

Sulman, John, F.R.I.B.A.¶

Sullivan, Denis Joseph, B.A., 1899

Sullivan, Henry, B.A., 1872

Sullivan, James, B.A., 1894

Sullivan, James, B.A., 1867

Sullivan, Reginald, B.A., 1892, LL.B.

Sutherland, Constance A., M.A.

Sutherland, Elmina L., B.A., 1891

Sutherland, Peter, B.A., 1890

Swanwick, Kenneth ffoulkes, B.A., 1896, LL.B.

Sweet, Geoffrey Bruton, M.B., 1893

Swynny, William Frank, B.A., 1899

Symonds, Bertha Violet, B.A., 1897

Symonds, Daisy, B.A., 1893

Tange, Charles L., B.A., 1880

Tange, Frank Septimus, M.B., Ch.M.

Tarleton, John Willington, M.B., 1902

Tarplee, W. F., B.A., 1884

Taylor, Charles, M.D.

Taylor, Charles James, M.B., Ch.M.

Taylor, Elizabeth Ironside, M.A. (Mrs. Bowden)

Taylor, Hugh W., M.A.

Taylor, James Wilson, M.A.‡

Taylor, John M., M.A., LL.B.

Taylor, Sarah, B.A., 1893

Taylor, Thomas Manning, B.A., 1901

Teece, Richard, F.I.A., F.F.A.†

Teece, Richard Clive, M.A., LL.B.

Teece, Roy Noel, M.A.

Telfer, James Barnet, M.A.

Terrey, Hedley, M.B., Ch.M.

Thallon, James B., B.A., 1876

Thomas, David, B.E., 1902

Thomas, George Bowen, M.B., Ch.M.

Thomas, Richard Weld, B.A., 1893

Thompson, Alexander, B.A., 1895

Thompson, I. Florence, M.A.

Thompson, James A., M.A.

Thompson, Joseph, M.A., LL.B.

Thompson, Robert Alfred, B.A., 1891

Thompson, Sydney A., B.A., 1887†

Thompson, Wm. Mann, M.A., B.E.

Thomson, Alec., B.A., 1891, LL.B.

Thomson, Jack Mowbray, M.B., Ch.M.

Thorburn, James Thomas, B.A., 1886

Thorne, George, B.A., 1865

Thornton, Septimus, B.A., 1896

Throsby, Herbert Zouch, M.B., 1898

Tidswell, Frank, M.B., Ch.M.

Tighe, William, B.A., 1892, LL.B.

Tivey, John Proctor, B.A., 1902

Todd, Frederick Augustus, B.A., 1901, Ph.D.¶

Tole, Joseph, B.A., 1869, LL.B.

Tom, Wesley, B.A., 1860

Townley, Percy Langford, B.A., M.B., Ch.M.

Tozer, Seymour Darvall, B.A., 1899, LL.B.

Tracey, Frederick, M.A.

Trebeck, Tom Beal, M.A.

Trindall, Richard B., B.A., M.B., Ch.M.

Try, John Cowley, B.E., 1902

Tudor-Jones, Evan, M.B., Ch.M.

Turner, Annie Elizabeth, B.A., 1899

Turner, Emily May, M.A.

Turner, Basil W., A.R.S.M.¶

Twynam, Henry, B.E., 1896

Ure, Edith, M.B., Ch.M.

Uther, Allan Hammill, B.A., 1891, LL.B.

Uther, Jennie Bertha, B.A., 1894

Uther, Mary Handfield, M.A.

Vallack, Arthur Styles, M.B., Ch.M.

Varley, Charles Grant, LL.B., 1902‡

Veech, Michael, M.B., Ch.M.

Veech, Louis Stanislaus, B.A., 1890, LL.B.

Verco, Sydney Manton, M.B., Ch.M.

Verco, Clement Armour, M.B., Ch.M.

Verge, Arthur, M.B., Ch.M.

Verge, John, B.A., 1899

Vernon, Murray Menzies, M.B., Ch.M.

Vicars, James, M.E.

Vickery, Ebenezer Frank, B.A., 1901, LL.B.

Vivers, George Arthur, M.B., Ch.M.

Vonwiller, Oscar Ulric, B.Sc., 1902¶

¶ Public Teacher.

‡ Admitted *ad eundem gradum*.

‡ Examiner.

† Fellow of the Senate.

- Waddell, Annie, B.A., 1895 (Mrs. Thomas)  
Waddell, George Washington, M.A., LL.D.†  
Waddy, Percival Richard, B.A., 1891, LL.B.  
Wade, Robert Blakeway, M.D.  
Waldron, Thomas W. King, B.A., 1893, LL.B.  
Walker, James Ernest, B.A., 1894, LL.B.  
Walker, Samuel Herbert, B.A., 1894  
Walker, William A., B.A., 1888  
Wallace, Donald, M.A., M.B.  
Wallace, F. E., B.A., 1889, LL.B.  
Wallach, Bernard, B.E., 1897  
Walsh, John James, B.A., 1899  
Walsh, William M. J., M.A.  
Walton, George Henry Montague, B.A., 1899, LL.B.  
Walton, William Bain, M.B., Ch.M.  
Ward, Leonard K., B.A., 1900, B.E.  
Ward, Ruby Estelle, B.A., 1897  
Ward, Thomas W. C., B.A., 1884, B.E.  
Wardrop, Gabriel, B.A., 1893  
Wark, Florence Helen, M.A.  
Warren, Ernest William, B.E., 1897, B.A., LL.B.  
Warren, William Edward, M.D.‡  
Warren, William Henry, M.I.C.E.¶  
Wassell, Joseph Leathom, M.B., Ch.M.  
Waterhouse, Gustavus Athol, B.Sc., 1899, B.E.  
Waterhouse, John, M.A.  
Watkins, John Leo, M.A.  
Watson, James Frederick, M.B., Ch.M.  
Watson, William Geo., M.A.  
Watson, Robert S., B.A., 1887  
Watt, Andrew Robert James, B.A., 1893, LL.B.  
Watt, Charles Prosper, B.A., 1893  
Watt, John Alexander, M.A., B.Sc.  
Waugh, Robert, M.A.  
Wearne, Amy Isabel, B.A., 1893  
Wearne, Minnie F., M.A.  
Wearne, Richard Arthur, B.A., 1895  
Weigall, Albert Bythesea, M.A.  
Weigall, A. Raymond, B.E., 1894  
Weigall, Harold Walter, B.A., 1896  
Welsh, David Arthur, M.A., B.Sc., M.D.¶  
Wentworth, Fitzwilliam, M.A.  
West, Edith Annie, B.A., 1900  
West, Francis William, M.B., Ch.M.  
Weston, Percy Leonard, B.Sc., 1901, B.E.¶  
Wheeler, Harold Charles Fearon, B.A., 1902  
White, Charles Alfred, B.A., 1895  
White, Norman Frederick, B.E., 1894  
White, W. Moore, LL.D.‡  
Whiteman, Reginald John Nelson, M.B., Ch.M.  
Whitfeld, Eleanor Madeline, B.A., 1895 (Mrs. Wood)  
Whitfeld, Hubert E., B.A., 1897, B.E.  
Whitfeld, Lewis, M.A.  
Whiting, Joseph, B.A., 1895  
Wilkinson, Fredk. B., M.A.  
Wilkinson, Henry L., B.A., 1880  
Wilkinson, W. Camac, B.A., 1878, M.D.¶  
Williams, A. Lukyn, M.A.‡  
Williams, Alfred James, B.A., 1898  
Williams, James L., B.A., 1892  
Williams, John Alfred, B.A., 1894  
Williams, Leslie Ballesat, B.A., 1899, B.E.  
Williams, William, B.A., 1891  
Williams, William, B.A., 1895  
Williams, Wm Henry, B.A., 1894  
Williamson, Mark A., B.A., 1879  
Williamson, Percy Leyden, B.A., 1899  
Willis, Charles Savill, M.B., Ch.M.  
Willis, Robert Spier, M.A.  
Wilshire, Hector, M.A.  
Wilson, David, M.A.  
Wilson, Ella, M.A.  
Wilson, Frederick James, B.A., 1893  
Wilson, George Harry, B.A., 1901, LL.B.  
Wilson, Gwendolene Lilian, B.A., 1900  
Wilson, John Bowie, B.E., 1897

† Examiner.

‡ Admitted *ad eundem gradum*.

¶ Public Teacher.

Wilson, Jas. T., M.B., Ch.M.¶	Woodward, Frederick P., B.A., 1892
Wilson, Richard Cunliffe, B.Sc., 1901	Woolcock, John L., B.A., 1883
Wilson, Roger, B.A., 1877	Woolnough, Geo., M.A.
Wilson, Thos. George, M.D., Ch.M.	Woolnough, Robert Edmund, M.B., Ch.M.
Wilton, Edward Nowill, B.A., 1900	Woolnough, Walter Geo., D.Sc.¶
Windeyer, John Cadell, M.D., Ch.M.	Wootton, Ernest, B.A., 1892
Windeyer, Richard, B.A., 1891	Woore, John Morris Simeon, B.E., 1896
Windeyer, William Archibald, B.A., 1893	Worrall, Ralph, M.D. §
Winton, Louis Joseph, B.E., 1901	Wright, Stewart, B.A., 1882
Wise, Bernhard R., B.A., 1885§	Wyatt, Arthur H., M.A.
Withycombe, Ernest John, B.A., 1899	Yarnold, Alfred Henry, M.A.
Wolstenholme, Harry, B.A., 1890	Yarnold, Isabel May, B.A., 1899.
Wood, Ebenezer C., M.A., B.Sc., B.E.	Yarrington, Clive T. L., M.A.
Wood, Fredk. Ernest, B.A., 1890	Yarrington, W. H. H., M.A., LL.B.
Wood, Frederick William, B.A., 1894	Yeates, Ainslie Arthur, M.A.
Wood, George Arnold, M.A.¶	Yeomans, Allan, M.A.
Wood, James Patrick, B.E., 1895	Young, Edgar Harold, M.B., Ch.M.
Wood, Harrie Dalrymple, B.A., 1893, LL.B.	Young, James, B.A., 1900, LL.B.
Woodcock, Lancelot R., B.E., 1905¶	Zlotkowski, Frederick Sobieski
Woodd, Henry A., B.A., 1887	Wladimir, M.B., Ch.M.
Woodhouse, William John, M.A.¶	
Woodthorpe, Robert A., M.A.	

¶ Public Teacher.

§ Admitted *ad eundem gradum*.



## GRADUATES.

## MASTERS OF ARTS.

Anderson, Catherine, 1901	Curtis, William John, 1903
Anderson, Francis, 1890 ‡	Dalton, Gerald T. A., 1882
Anderson, Henry C. L., 1878	Davies, Edith Warlow, 1901
Backhouse, Alfred P., 1873	Dawson, Arthur F., 1877
Barber, Richard, 1889	Dawson, James, 1903 ‡
Barbour, George Pitty, 1889	Deane, Henry, 1893 ‡
Barff, Henry E., 1882	Deane, William Smith, 1884
Barlee, Frederick Rudolph, 1884	Delohery, Cornelius, 1888
Barnes, Pearl Ella, 1905	Dennis, James, 1897
Barton, Edmund, 1870	Dillon, John T., 1876
Binns, William Johnstone, 1902	Docker, Ernest B., 1865
Blumer, George Alfred, 1897	Doust, Edith Lucy, 1898
Board, Peter, 1891	Dunstan, Ephraim, 1870
Bowden, John E., 1863	Edmunds, Walter, 1879
Bowmaker, Ruth, 1895	Edwards, J. Ross, 1884
Bowman, Andrew, 1864	Edwards, Edwd. Samuel, 1898
Bowman, Edward, 1864	Eldridge, Ada Maitland, 1903
Brennan, Christopher J., 1897	Faithfull, George E., 1869
Brennan, Francis P., 1882	Faithfull, Henry M., 1871
Brennan, Sarah O., 1891	Faithfull, William P., 1868
Brierley, Frank Nunan, 1893	Fisher, Donnelly, 1875
Broughton, Alfred, 1870	Fitzgerald, Robert M., 1859
Brown, George Edward, 1900	Fitzhardinge, Grantley H., 1869
Bucknell, D'Arcy H., 1886	Fitzhardinge, Maude Yeomans, 1901
Campbell, Edward, 1884	Fletcher, Frank E., 1883
Campbell, Gerald R., 1885	Fletcher, Joseph J., 1876
Campbell, Joseph, 1882	Fletcher, Michael Scott, 1902
Cape, Alfred John, 1867	Flint, Charles Alfred, 1884
Carruthers, Joseph H., 1878	Flynn, John, 1879
Chalmers, Stephen Drummond, 1899	Flynn, Joseph A., 1881
Chambers, George Alexander, 1904	Fosbery, Eustace E., 1881
Cocks, Nicholas John, 1892	Francis, Henry R., 1870
Coghlan, Charles A., 1879	Freehill, Francis B., 1876
Cohen, John J., 1881	Fry, Florence Mildred, 1905
Cole, Percival Richard, 1905	Fuller, George W., 1882
Cooper, David J., 1871	Fullerton, Lottie (Mrs. Austin), 1905
Cooper, Pope A., 1874	Gardiner, Andrew, 1888 ‡
Cordingley, Grace Marion, 1903	Garland, James R., 1862
Cormack, Alexander J., 1886	Garland, John, 1905 ‡
Cowlishaw, William Patten, 1862	Garnsey, Arthur Henry, 1896
Cowper, Sedgwick S., 1870	Garran, Robert Randolph, 1899
Crawford, Thomas Simpson, 1904	Garrick, Joseph H., 1871
Cribb, Estelle Muriel Bridson, 1901	Gibbes, Alfred George, 1875
Cribb, John George, 1893	Gill, Alfred Chalmers, 1899
Crocker, Herbert D., 1886	Gillam, Dora Alice, 1903
Crompton, William, 1876	Gordon, Emily Isabel, 1902
Cullen, William Portus, 1882	Gray, Arthur St. J., 1887 ‡
Curtis, William C., 1859	Griffith, Alfred John, 1896

‡ Admitted *ad eundem gradum*.

- Griffith, Samuel W., 1870  
 Hall, William Hessel, 1890  
 Halloran (*née* Guérin), Bella, 1892‡  
 Hammond, A. de Lisle, 1884  
 Healy, Patrick J., 1877  
 Hill, George Arthur, 1899  
 Hill, Thomas, 1878  
 Hills, Henry H., 1880  
 Hodgson, Evelyn G., 1881‡  
 Hogg, James E., 1890‡  
 Holt, Wilfred John, 1902  
 Hudson, William, 1902  
 Hunter, John, 1869  
 Hurst, George, 1882  
 Iceton, Edward Arthur, 1870  
 Iceton, Thomas H., 1872  
 Jackson, Henry Latimer, 1886‡  
 Jackson, Robert, 1880  
 James, William Edwin, 1903  
 Jensen, Klio, 1905  
 Johnson, James W., 1859  
 Johnston, Alexander W., 1876  
 Jones, Griffith E. R., 1877  
 Jones, Cortis Harry Frederick, 1902  
 Jones, Rees R., 1872  
 Kay, Robert, 1876  
 Kellett, Frederick, 1895  
 Kemp, Richard E., 1873  
 Kennedy, Philip, 1903  
 Kent, Frederick D., 1874  
 Kent, Harry C., 1875  
 King, Cecil J., 1887  
 King, Copland, 1887  
 King, Frederick H., 1876  
 King, Walter Uther S., 1884  
 Lance, Elisabeth Ada, 1900  
 Lander, William H., 1882  
 Lang, John Gavin D., 1884  
 Lasker, Samuel, 1903  
 Lee, Edward, 1859  
 Lee, William, 1878  
 Legge, J. Gordon, 1887  
 Liddell, Andrew I., 1875  
 Lingen, John Taylor, 1881‡  
 Lomer, Caroline, 1891  
 Louis, Philip Herbert, 1904  
 Loxton, Edward James, 1888  
 Lukin, Gresley W. H., 1891  
 MacDonald, Jas. M., 1879  
 McDowall, James, 1905  
 Macdonald, Louisa, 1892‡  
 McLaren, Alexander Duncan, 1903  
 Maclardy, J. D. St. Clair, 1883  
 MacMullen, Frank, 1901  
 MacPherson, John, 1895  
 Mann, William J. G., 1882  
 Manning, Jas. Napoleon, 1885  
 Manning, William A., 1875  
 Manning, W. Hubert, 1878  
 Marrack, John Rea Melville, 1884  
 Mayne, Wm. M., 1884  
 Meares, Matilda, 1892  
 Meillon, John, 1888  
 Merewether, Walton L., 1879  
 Merrington, Ernest Northcroft, 1903  
 Metcalfe, George, 1868  
 Millard, Godfrey William, 1896  
 Mills, Elsie Ada Harland, 1903  
 Mitchell, David S., 1859  
 Molster, Sarah, 1904  
 Monaghan, John Graham, 1902  
 Monnington, Alfred, 1888‡  
 Montague, James H., 1877  
 Moore, Samuel, 1882  
 Mort, H. Wallace, 1881‡  
 Mullins, John Lane, 1879  
 Murray, Charles E. R., 1865  
 Murray, Donald, 1892  
 Murray, Florence Jane (Mrs. Armistage), 1905  
 Nathan, Edward A., 1882  
 Noble, Edmund Murray, 1890  
 Nolan, John Henry Monteith, 1903  
 O'Brien, Francis, 1868  
 O'Connor, Richard E., 1873  
 O'Mara, Michael, 1877  
 Oliver, James, 1885  
 Parish, Walter G., 1866  
 Parsons, Joseph, 1904  
 Paxton, Betha, 1903  
 Perkins, Alfred Edward, 1886  
 Perkins, Frederick Thomas, 1901  
 Perry, John, 1876  
 Pike, George H., 1891  
 Plomley, Francis James, 1876  
 Powell, Theodore, 1876  
 Pring, Robert D., 1875  
 Proctor, Lizzie, 1898  
 Purves, John M., 1873  
 Quaife, Frederick H., 1862

Ralston, Alexander G., 1883  
 Rennie, Edward H., 1876  
 Reynolds, Reginald Blair, 1903  
 Rich, George E., 1885  
 Rigg, Thomas, 1890  
 Riley, Ernest Arthur, 1905  
 Robertson, Joseph, 1877  
 Robjohns, Henry T., 1891  
 Rofe, John F., 1885  
 Rogers, Francis E., 1863  
 Rolin, Tom, 1885  
 Roseby, Thomas, 1871  
 Roseby, Thomas Ernest, 1901  
 Russell, Edward, 1880  
 Russell, Frank A. A., 1894  
 Russell, Jane Foss, 1889  
 Russell, John Frazer S., 1896  
 Russell, William, 1882  
 Rutledge, David D., 1875  
 Rygate, Philip William, 1886  
 Sawkins, Dansie Thomas, 1902  
 Sharp, William Hey, 1881½  
 Shaw, Henry Giles, 1894  
 Simpson, Archd. H., 1895  
 Slack, Ida Leslie, 1901  
 Sly, George J., 1874  
 Sly, Joseph D., 1872  
 Sly, Richard M., 1876  
 Smairl, Joseph Henry, 1896  
 Small, Ethel Ella, 1902  
 Smith, William Michael, 1904  
 Smith, William S., 1905  
 Smith, Robert, 1878  
 Smyth, Frank L. S., 187  
 Stack, John, 1860  
 Steel, Robert, 1879  
 Stephen, Cecil B., 1864  
 Stephenson, John Hunter, 1892  
 Stonham, John, 1896  
 Stoyles, Herbert George, 1904  
 Sutherland, Constance Adelaide, 1889  
 Taylor, Elizabeth Ironside, 1899

Taylor, Hugh W., 1884  
 Taylor, James Wilson, 1887½  
 Taylor, John Michael, 1891  
 Teece, Richard Clive, 1901  
 Teece, Roy Noel, 1904  
 Telfer, James Barnet, 1903  
 Thompson, I. Florence, 1887  
 Thompson, James A., 1882  
 Thompson, Joseph, 1875  
 Thompson, William M., 1875  
 Tracey, Frederick, 1885  
 Trebeck, Tom Beal, 1884  
 Turner, Emily May, 1902  
 Uther, Mary Handfield, 1904  
 Waddell, George Washington, 1900  
 Wallace, Donald, 1899  
 Walsh, William M. J., 1889  
 Wark, Florence Helen, 1905  
 Waterhouse, John, 1876  
 Watkins, John L., 1876  
 Watson, William George, 1873  
 Watt, John Alexander, 1892  
 Waugh, Robert, 1879  
 Wearne, Minnie, 1892  
 Weigall, Albert B., 1869  
 Wentworth, Fitzwilliam, 1876  
 Whitfeld, Lewis, 1882  
 Wilkinson, Frederick Bashby, 1884  
 Williams, A. Lukyn, 1881½  
 Willis, Robert Spier, 1862  
 Wilshire, Hector, 1904  
 Wilson, David, 1903  
 Wilson, Ella, 1895  
 Wood, Ebenezer Clarence, 1886  
 Woodthorpe, Robert A., 1890  
 Woolnough, George, 1873  
 Wyatt, Arthur H., 1869  
 Yarnold, Alfred Henry, 1903  
 Yarrington, Clive Tennyson L., 1895  
 Yarrington, William Henry H., 1880  
 Yeates, Ainslie Arthur, 1900  
 Yeomans, Allan, 1871

## BACHELORS OF ARTS.

Abbott, George H., 1887  
 Abbott, Henry Palmer, 1893  
 Abbott, Thomas K., 1888  
 Abigail, Eliza L., 1893  
 Abigail, Ernest Robert, 1896  
 Alexander, Maud Marion, 1902  
 Allan, Edith Jeannie, 1895

Allen, Arthur W., 1883½  
 Allen, George Boyce, 1877  
 Allen, Leslie Holdsworth, 1904  
 Allen, Reginald C., 1879  
 Amess, William, 1883  
 Amos, Jeanie Cairns, 1890  
 Amos, Nellie Margaret, 1902

- Anderson, Hugh Miller, 1890  
 Anderson, Maud Edith, 1896  
 Anderson, Virginia, 1904  
 Anderson, William Addison S., 1892  
 Andrews, Ernest Clayton, 1894  
 Anstey, George Webb, 1893  
 d'Apice, Antoine William M., 1899  
 Armitage, Charles Horsfall, 1902  
 Armstrong, Clare Annie Constance, 1905  
 Armstrong, Helen Daphne Harvey, 1902  
 Armstrong, Ina Beatrice Harvey, 1901  
 Armstrong, Isabella, 1895  
 Armstrong, Laurens F. M., 1884  
 Armstrong, Margaret Jane, 1897  
 Armstrong, Tancred de C., 1891  
 Armstrong, William G., 1884  
 Arnold, Edwin Charles, 1896  
 Artlett, Ettie, 1888  
 Artlett, William Langridge, 1902  
 Askham, Albert Charles, 1905  
 Aspinall, Arthur Ashworth, 1889  
 Atkins, William Leonard, 1893  
 Auld, John Hay Goodlet, 1897  
 Austin, Alfred Herbert, 1903  
 Austin, Fanny May, 1905  
 Ayres, Charles, 1882  
 Bailey, Margaret Anne, 1900  
 Baret, Henri Victor David, 1903  
 Barker, Henry Auriol, 1881 &  
 Barker, Thomas Charles, 1886  
 Barnett, Donald McKay, 1890  
 Barraclough, Francis Egerton, 1895  
 Barrow, Isaacs Manly, 1905  
 Barry, Duncan Robertson, 1905  
 Barry, Hugh de Barri, 1898  
 Barton, Joanna, 1893  
 Barton, John a'Beckett D., 1896  
 Barton, Wilfrid Alexander, 1903  
 Bathgate, Donald Gordon, 1903  
 Bavin, Gertrude Lillian, 1898  
 Bavin, Thos. Rainsford, 1894  
 Baylis, Harold M., 1883  
 Beardmore, Ada, 1896  
 Beardmore, Emily Maud, 1894  
 Beardmore, Robert Henry, 1895  
 Beaumont, Annie Holloway, 1898  
 Beckenham, John George, 1904  
 Beegling, Daniel, 1885  
 Beehag, Samuel Alfred, 1886  
 Berne, Percy Witton, 1883  
 Bertie, Charlotte Maud, 1896  
 Black, Reginald Austin William, 1896  
 Blacket, Arthur R., 1872  
 Blacket, Cuthbert, 1891  
 Blatchford, Torrington, 1894  
 Blaxland, Henry Charles, 1897  
 Bloomfield, Elsie I'Anson, 1897  
 Bloomfield, William John, 1896  
 Blumer, Charles, 1894  
 Bode, Arnold G. H., 1888  
 Bonamy, Nellie Mildred Blanche, 1899  
 Bolton, Barbara Marion, 1892  
 Bonney, Reginald Schofield, 1904  
 Booth, Mary, 1890  
 Bowmaker, Jessie, 1901  
 Bowmaker, Theophilus Robert, 1896  
 Bowman, Arthur, 1880  
 Bowman, Ernest M., 1880  
 Bowman, Alister S., 1878  
 Boxall, Nelson Leopold, 1896  
 Boyce, Francis Stewart, 1893  
 Brearley, Edwin Andrew, 1904  
 Brennand, Henry John W., 1896  
 Brentnall, Nina Tillotson, 1903  
 Brereton, John Le Gay, 1894  
 Britten, Herbert Edward, 1888  
 Britton, Theodosia Ada, 1891  
 Broderick, Cecil Thomas Hawkes, 1896  
 Brodie, Isabella Esther, 1895  
 Broinowski, Leopold T., 1897  
 Brook, Henry James Sidney, 1896  
 Broome, Edward, 1897  
 Brown, Alfred, 1866  
 Brown, George Edward, 1904  
 Brown, Mary Elizabeth, 1885  
 Brown, Sophia, 1894  
 Brown, William Vernon, 1894  
 Browne, William C., 1864  
 Brownlie, Elizabeth Alice Dalziel, 1901  
 Brownlie, Eveline Agnes, 1902  
 Bruce, Annie, 1901  
 Bruce, Grace Mitchell, 1901  
 Bruce, Mary Jane, 1896  
 Bruce, Mary H., 1887  
 Buchanan, Charles Arthur, 1889  
 Buchanan, Charles Pakenham, 1900

- Buckland, Thomas, 1878  
 Bundock, Charles, 1878  
 Bundock, Francis F., 1877  
 Bunting, Edith Annie, 1896  
 Burfitt, Manie Boyd, 1905  
 Burfitt, Walter F., 1894  
 Bushnell, Pollie, 1896  
 Butler, Francis Joseph, 1882  
 Butler, Patrick James, 1900  
 Butler, Spencer Joseph St. C., 1893  
 Butler, Stanley William Beauchamp, 1900  
 Butler, Thomas, 1876  
 Byrne, James Kevin, 1894  
 Byrne, Lily Comyn, 1896  
 Byrne, William Edmund, 1892  
 Cadden, Leslie George Barton, 1899  
 Cahill, Annie Lucille, 1894  
 Cakebread, William Jowers, 1894  
 Callaghan, Stanislaus Kostka, 1905  
 Cameron, Archibald Peter, 1894  
 Cameron, William Thomas, 1904  
 Campbell, Alexander Petrie, 1904  
 Campbell, Allan, 1874  
 Campbell, Charles Robert, 1893  
 Campbell, George Polding, 1885  
 Campbell, John Stuart, 1902  
 Canaway, Arthur P., 1894½  
 Candlish, Robert Smith, 1904  
 Cargill, John Sydney, 1889  
 Carlile-Thomas, Ella, 1900  
 Carlisle, William W., 1878  
 Carlos, Joseph, 1893½  
 Carey, Daisy, 1904  
 Caro, Hilda, 1896  
 Carroll, William John Smyth, 1904  
 Carruthers, Ada Mary, 1904  
 Carvoso, Albert B., 1884  
 Casey, Michael Alphonsus, 1896  
 Castleman, Arthur, 1902  
 Castling, James Robert, 1896  
 Chapman, Alfred Ernest, 1893  
 Chisholm, William, 1875  
 Chubb, Montague Charles Lyttelton, 1896  
 Clark, Francis George, 1900  
 Clarke, Francis William, 1884  
 Clegg, William Carnegie, 1899  
 Clines, Peter Joseph, 1896  
 Clipsham, Gertrude Mary, 1899  
 Closs, William John Leech, 1890  
 Clubb, Wallace, 1896  
 Coffey, Francis Louis Verhulst, 1894  
 Cohen, Alroy Maitland, 1903  
 Cole, Louisa, 1898  
 Collier, Frederick William Dean, 1901  
 Collings, Edith, 1904  
 Combes, Jane Frances, 1895  
 Compton, Albert Zarenne, 1904  
 Conlon, William Aloysius, 1891  
 Connellan, John, 1892  
 Connolly, John, 1894  
 Connor, Thomas John, 1895  
 Copland, Frank Fawcett, 1894  
 Cook, Sydney Leicester, 1898  
 Cooke, Clarence Hudson, 1892  
 Coombes, Archie James, 1905  
 Corbett, William Francis, 1883  
 Cosh, James, 1891  
 Coutts, Margaret, 1903  
 Cowan, David, 1894  
 Cowlshaw, Winifred, 1903  
 Cox, Harold, 1889  
 Coyle, William Thomas, 1891  
 Craig, Alexander Donald, 1893  
 Craig, Charles, 1892  
 Crane, Charles, 1882  
 Cramp, Karl Reginald, 1904  
 Cranswick, George Harvard, 1904  
 Crawford, Stella Maud C., 1896  
 Creagh, Albert Jasper, 1889  
 Creagh, William John, 1892  
 Cripps, Esther Fischer, 1891  
 Crisford, Hilda Nelsie Moore, 1902  
 Crowley, Archibald, 1901  
 Cruise, Emily A., 1897  
 Cullinane, John Aloysius, 1895  
 Cumming, Jennie, 1896  
 Curlewis, Harold Burnham, 1897  
 Curlewis, Herbert Raine, 1890  
 Curnow, William Leslie, 1890  
 Curren, Ethel, 1905  
 D'Arcy, George Synnott, 1895  
 D'Arcy, John Synnott, 1890  
 D'Arcy-Irvine, Malcolm M., 1889  
 Daley, Frank H., 1889  
 Dalmas, Lizzie, 1895  
 Daly, May Edith, 1895  
 Dash, Ebenezer, 1894  
 Dargin, Sydney, 1871

Davidson, Colin George Watt, 1899	Elphinstone, James, 1881
Davies, Arthur Bernard, 1894	Elphinstone, James Cooke, 1896
Davies, Wyndham John E., 1893	Emanuel, Nathaniel, 1867
Davis, Agnes Marianne Harrison, 1896	England, Theophilus, 1885
Davis, Henry, 1890	England, Thomas H., 1885
Davison, Samuel Beaumont, 1896	Enright, Walter John, 1893
Dawes, Madeleine Mabel, 1905	Evans, Ada Emily, 1895
Day, Leo Septimus, 1899	Evans, Sara, 1904
De Lissa, Ethel Naida, 1898	Evans-Jones, David Pentland, 1898
De Lissa, Horace, 1896	Fahey, Bartley Francis, 1901
Denham, Howard Kynaston, 1903	Feez, Arthur H., 1880
Dettmann, Herbert Stanley, 1897	Fell, Catherine Isabella, 1900
Dey, Charlotte Johnston, 1898	Ferguson, David, 1886
Dick, James Adam, 1886	Ferguson, John Alexander, 1902
Dick, William Thomas, 1890	Fidler, Carleton B., 1888
Dickinson, Edward Moseley, 1899	Fidler, Isabel Margaret, 1898
Dimond, Margaret Cecilia, 1893	Finn, William George, 1895
Dixon, Herbert Hutchinson, 1894	Finney, Charlotte, 1895
Doak, Frank Wiseman, 1891	Finney, Joseph, 1894
Docker, Gladys Mary Brougham, 1903	Fisher, Arthur Donnelly, 1904
Docker, Wilfred Brougham, 1905	Fitzgerald, Edmund, 1866
Doig, Alexander John, 1895	Fitzgerald, John Timothy, 1890
Douglas, Robert Johnstone, 1905	Fitzpatrick, Bernard Joseph, 1897
Dove, William R. Norton, 1893	Fitzpatrick, Thomas John A., 1893
Dowe, Philip William, 1893	Flannery, George Ernest, 1892
Dowling, Frank Vincent, 1898	Flashman, James Froude, 1892
Doyle, John, 1891 <sup>‡</sup>	Flavelle, Lucy Isabel, 1896
Drummond, Shafto Landour, 1893	Fleming, Howard George T., 1894
Dudley, Joseph T., 1885	Fletcher, Archibald William, 1886
Duff, Victor Clark, 1904	Fletcher, Charles R., 1881
Dumolo, Nona, 1898	Fletcher, J. A., 1879
Dunlop, John W., 1895	Fletcher, Katherine Elizabeth, 1895
Dunlop, Norman John, 1890	Flynn, William J., 1884
Dunne, John D., 1873	Forde, James, 1891
Dunnicliff, Mary Clifton, 1898	Foreman, Henry James Clifton, 1896
Durack, Joseph Jerry E., 1899	Forster, Charles E., 1876
Eames, Jane, 1895	Forsyth, Walter George, 1898
Ebsworth, Samuel Wilfred, 1905	Fosbery, Vincent F., 1886
Edmunds, John Michael, 1892	Fox, Harold S., 1885
Edmunds, May, 1897	Fox, Millicent, 1905
Edwards, David Sutherland, 1894	Fraser, Robert W., 1885
Edwards, Edward Evan, 1898	Fraser-Hill, Charlotte Elizabeth, 1902
Edwards, John, 1891	Freeman, Ambrose William, 1896
Elder, Francis R., 1877	Fry, Edith May, 1904
Elkin, Jonathan Bevan, 1895	Fullerton, Alex. Y., 1885
Elliott, Millicent V., 1895	Galt, James, 1899
Ellis, Ethel, 1894	Garnsey, Edward R., 1885
Ellis, Mary, 1894	Geddes, Samuel, 1885
Elphinstone, Elsie Mary, 1899	George, John, 1893

<sup>‡</sup> Admitted *ad eundem gradum*.

- Gerber, Edward William T., 1892  
 Giles, John Porter Harris, 1903  
 Gillies, James, 1889  
 Goddard, Ernest James, 1904  
 Goddard, Thomas Herbert, 1904  
 Gordon, George Acheson, 1895  
 Gorman, John R., 1866  
 Gough, Norman John, 1900  
 Graham, Emily Rebeoca, 1903  
 Graham, Frances, 1905  
 Grant, William James, 1903  
 Grassick, Charles C., 1897  
 Greenlees, Gavin, 1895  
 Green, Henry Mackenzie, 1902  
 Greenway, Alfred R., 1870  
 Gregson, Edward Jesse, 1903  
 Gregson, William Hilder, 1898  
 Grieve, John Thomas, 1902  
 Grieve, Robert Henry, 1900  
 Griffith, James Shaw, 1895  
 Griffiths, Frederick Guy, 1898  
 Grogan, Albert Thomas Henry, 1897  
 Hadley, Alfred Edward, 1893  
 Hadley, Charles William, 1899  
 Haigh, Victor, 1905  
 Hall, Alfred Ernest, 1893  
 Halliday, George C., 1884  
 Halloran, Aubrey, 1892  
 Halloran, George Henry, 1896  
 Halloran, Ida, 1893  
 Hammond, John Harold, 1896  
 Hansard, Edith Hirst, 1897  
 Hargraves, Edward John, 1859  
 Harker, Constance Elizabeth, 1895  
 Harley, Helen Louise, 1903  
 Harriott, Charles Warre, 1889  
 Harriott, Georgina Jane, 1894  
 Harris, George, 1891  
 Harris, John, 1892  
 Harris, Lewis Alexander, 1905  
 Harris, Marian, 1898  
 Harris, Matthew, 1863  
 Harris, Reginald Arthur, 1902  
 Harvey, Revina, 1895  
 Harvey, William George, 1894  
 Harwood, Marian Fleming, 1898  
 Hawken, Roger William H., 1902  
 Hay, Mary Catherine, 1897  
 Hayes, David John, 1894  
 Hedberg, John Alfred, 1896  
 Heden, Ernest Charles, 1898  
 Helsham, Charles Howard, 1892  
 Henderson, George Cockburn, 1893  
 Henderson, Robert Greenway, 1905  
 Henderson, Robert Newburn, 1895  
 Henry, Ada, 1900  
 Henry, Hugh, 1905  
 Henry, Ida Emily, 1902  
 Hewitt, Thomas Cotgrave, 1904  
 Higgins, Michael A., 1879  
 Higgins, Percy Reginald, 1893  
 Hill, Evelyn M., 1895  
 Hill, James Henry Fraser, 1900  
 Hill, John Goodwin Watson, 1901  
 Hilliard, Arthur Vaughan, 1890  
 Hinder, Robert John, 1889  
 Hinton, William Samuel, 1902.  
 Hipsley, Alice Ellen, 1898  
 Hobbs, Edwin, 1897  
 Hobbs, John William, 1894  
 Hodge, Ernest Arthur, 1895  
 Hodge, Sydney Trevillian, 1902  
 Hodgkins, Amy Alice, 1895  
 Hogg, Kate Emily, 1894  
 Holliday, Andrew, 1898  
 Holloway, Eirene Anna, 1904  
 Holme, Ernest Rudolph, 1891  
 Holme, John Barton, 1893  
 Holmes, William Frederick, 1894  
 Holt, Arthur Christian, 1895  
 Holt, Edith Jane Catherine, 1902  
 Hood, Dannina, 1894  
 Hope, Percival, 1903  
 Hopkins, Francis Irvine, 1893  
 Hopman, John Henry, 1894  
 Horniman, Alexander, 1866  
 Houson, Andrew, 1869  
 Houson, James, 1863  
 Houson, Stephen James, 1898  
 Howard, John Bruton, 1895  
 Huggart, Alfred Theodore, 1892  
 Huggart, William Charles, 1898  
 Hughes, Charles Michael, 1886  
 Hughes, Hugh Jason, 1897  
 Hughes, James O'Donoghue A., 1894  
 Hughes, Michael O'Gorman, 1890  
 Hungerford, Hedley Heber, 1886  
 Hunt, Digby St. Clair W., 1895  
 Hunt, Hugh Alton Stanislaus, 1897  
 Hunter, Mary Alison Miles, 1895  
 Hunter, Thomas Brown, 1898  
 Hutchison, George Thomas, 1900  
 Hynes, Sarah, 1891



Jackson, Frederick Charles, 1897  
 Jacobs, James, 1894  
 James, Arthur Henry, 1893  
 James, Augustus G. F., 1888  
 James, George Alfred, 1893  
 James, Thomas, 1896  
 Jamieson, George Wellington, 1893  
 Jamieson, Sydney, 1884  
 Jaques, Harold Vivian, 1904  
 Jarrett, Marjorie Kate, 1901  
 Jarvie, Bennie, 1898  
 Jenkins, Charles J., 1887  
 Johnson, Martin Luther, 1893  
 Johnston, Ella Russell, 1895  
 Johnston, John, 1887  
 Johnston, Mary Eleanor, 1896  
 Johnston, Stephen Jason, 1894  
 Johnston, Thomas Harvey, 1905  
 Johnstone, Henry Thomas, 1885  
 Jones, Thomas, 1895  
 Jones, Thomas E., 1884  
 Jones, Ernest Trevor, 1884  
 Jones, Evan John, 1894  
 Jordan, Frederick Richard, 1904  
 Joseph, Horace B., 1887  
 Kelynack, Arthur James, 1889  
 Kelynack, Harold Leslie, 1893  
 Kemmis, William Henry, 1890  
 Kemp, Laura Mildred King, 1902  
 Kemp, Richard Cyril King, 1903  
 Kendall, Frank Louis, 1893  
 Kendall, Theodore M., 1876  
 Kenna, Patrick, 1882  
 Kennedy, Annie Augusta, 1893  
 Kennedy, Emily Clara, 1895  
 Kershaw, Joseph Cuthbert, 1894  
 Kidston, Robert Matthew, 1892  
 Kilgour, Alexander James, 1894  
 King, George C., 1887  
 King, R. W., 1884<sup>‡</sup>  
 Kinross, John, 1869  
 Kinross, Robert Menzies, 1889  
 Klein, James Augustus, 1897  
 Knight, Arthur, 1894  
 La Douce, Felicie Aurélie, 1905  
 Lafferty, Terence Matthew, 1899  
 Lamrock, Arthur Stanton, 1891  
 Lane, Frederick George, 1895  
 Langley, Isabella Edwardes, 1897  
 Langton, Frederick W., 1887

Larcombe, Ernest Richard, 1902  
 Larkins, Frank Joseph Moore, 1902  
 Latreille, Meta Gertrude Emily, 1905  
 Layton, John Edward, 1893  
 Leahy, John Patrick Daunt, 1890  
 Lee, Herbert Ernest, 1886  
 Lee, Thomas Nelson, 1899  
 Leibius, G. Hugo, 1888  
 Lenthall, Ellen Melicent, 1893  
 de Lepervanche, Eustace Mézières,  
 1900  
 Leverrier, Frank, 1884  
 Levick, Alfred Manning, 1904  
 Levy, Daniel, 1893  
 Lewis, Henry Clyde, 1893  
 Lichtscheindl, Rosa, 1894  
 Liggins, Jessie Hunsdon, 1899  
 Lindsay, William Carlow, 1903  
 Linsley, William H., 1880  
 Little, Vivian Agincourt Spence,  
 1903  
 Littlejohn, Edward S., 1887  
 Lloyd, Thomas, 1878  
 Logan, George, 1903  
 Lord, Frank Colbran Turner, 1903  
 Loudon, Bertha Winifred, 1904  
 Lowick, Clara Warne, 1904  
 Lydon, James, 1894  
 Lynch, Michael D., 1870  
 Lynch, William, 1863  
 Lyon, Pearson, 1890  
 Lyons, Ettie, 1904  
 MacCallum, Isabella Renton, 1904  
 Macansh, Andrew W., 1885  
 MacCarthy, Herbert T. S., 1860  
 McCarthy, Arthur W., 1881  
 McCook, Adam Stuart, 1895  
 McCook, William Henry, 1900  
 McCoy, William Taylor, 1894  
 McCulloch, Percy V., 1881  
 McDermott, Vesian B., 1887  
 McDonagh, John M., 1879  
 MacDonald, Fannie Elizabeth, 1895  
 McDonald, Timothy George, 1903  
 McDonnell, Randal C. W., 1888  
 McEvilly, Augustus, 1886  
 McEvilly, Ulric, 1883  
 McEvoy, Bertie Patrick, 1899  
 McGlynn, Rebecca Mary, 1898  
 McGuinn, Denis, 1884



- MacInnes, Angus, 1901  
 MacInnes, Isabel Mary, 1904  
 McIntosh, Harold, 1889  
 McIntyre, Aug. T., 1879  
 McIntyre, Duncan A., 1888  
 Mack, Sidney, 1890  
 McKay, James, 1896  
 Mackay, Iven Giffard, 1904  
 Mackintosh, Bertha Adeline Hilda, 1899  
 Mackness, Constance, 1902  
 McLaren, John Gilbert, 1895  
 McLaughlin, Daniel, 1890  
 MacLaurin, Henry Normand, 1899  
 Maclean, Charles Hector Roderick, 1901  
 MacLean, Frederick S., 1887  
 McLelland, Hugh, 1881  
 McLeod, James, 1879  
 McLintock, William Colin Scott, 1900  
 McMahon, Gregan, 1896  
 MacManamey, James Frazer, 1881  
 MacManamey, John Frazer, 1889  
 MacManamey, William Frazer, 1892  
 MacMaster, Donald Æneas D., 1894  
 McNeil, Andrew, 1889  
 McNevin, Arthur Joseph, 1895  
 McNevin, Thomas Butler, 1893  
 MacPherson, Peter, 1889  
 McWilliam, Neville Gilbert, 1903  
 Macrossan, Hugh Denis, 1902  
 Maffey, Reginald William H., 1896  
 Maher, Charles H., 1877  
 Maher, Matthew E., 1867  
 Maher, Thomas Francis, 1893  
 Main, John, 1892  
 Makin, William, 1902  
 Mallarky, Ethel May, 1895  
 Maloney, Andrew William, 1893  
 Maloney, John Thomas, 1899  
 Mannell, Francis Worthington, 1892  
 Manning, Henry Edward, 1900  
 Manning, Hugh Eldred, 1905  
 Manning, Reginald K., 1887  
 Manning, William Ernest, 1892  
 Markell, Horace Francis, 1905  
 Marks, Hyam, 1892  
 Marks, Percy J., 1887  
 Marks, Florence, 1893  
 Marks, Leah, 1893  
 Marr, Fannie Augusta, 1899  
 Martin, Lewis Ormsby, 1893  
 Martyn, Sydney Charles, 1889  
 Massey-Makinson, Arthur, 1903  
 Massie, Richard de Winton, 1886  
 Mate, William H., 1864  
 Mathews, Hamilton Bartlett, 1899  
 Mathison, Walter, 1880  
 Mayne, J. O'Neill, 1884  
 Maxted, Henry Louis, 1902  
 Maxwell, Henry Francis, 1895  
 Maxwell, William, 1904  
 Maynard, Ethel Margaret, 1894  
 Maze, William Archibald A., 1892  
 Meagher, Louis Felix, 1889  
 Meares, Hercules, 1893  
 Meek, Herbert Arthur, 1903  
 Meillon, Joseph, 1863  
 Mell, Cecil Newton, 1894  
 Melville, Hector Pope, 1905  
 Merewether, Edward A. M., 1884  
 Merewether, Hugh H. M., 1894  
 Merewether, William D. M., 1895  
 Miles, James Albert, 1894  
 Miller, James W., 1896  
 Millard, Alfred Charles, 1885  
 Miller, Richard J., 1885  
 Mills, Percy Harcourt, 1893  
 Mitchell, Ernest Meyer, 1896  
 Mitchell, Ethel Robertson, 1898  
 Molineaux, Amy Atherton, 1891  
 Moloney, Thomas Patrick, 1885  
 Molster, Eliza, 1897  
 Monahan, William Willis, 1897  
 Montefiore, Hortense Henriette, 1896  
 Montgomerie, John, 1889  
 Moore, David C., 1883  
 Moore, Frank Joseph Sarsfield, 1883  
 Moore, John, 1883  
 Moore, Verner, 1884  
 Moore, Walter Albert, 1894  
 Morgan, Frederick A., 1888  
 Morgan, Thomas H. D., 1892  
 Morley, Irene Madeline, 1904  
 Morrice, John, 1874  
 Morris, John James, 1895  
 Morris, Robert N., 1870  
 Morrish, Francis, 1882  
 Mote, Arnold Rudolph, 1902  
 Mott, Olive Lenore, 1905  
 Moulton, James Egan, 1892  
 Moustaka, Orea Emma Hellas, 1897  
 Mowbray, Rupert Wallace, 1903

- Mugliston, Madeleine Lucy, 1904  
 Mulholland, John Joseph, 1899  
 Mullens, Arthur Frank Macquarie, 1896  
 Munro, William J., 1880  
 Murray, Charles O'Connor, 1904  
 Murray, Mercy M. H., 1897  
 Murray-Prior, Dorothea Katherine, 1904  
 Murray-Prior, Robert Sterling, 1905  
 Mussmann, Carl Ernst Gottlieb, 1897  
 Mutton, Isaiah, 1900  
 Myers, David M., 1866  
 Nelson, Duncan John, 1895  
 Nettleship, Edward, 1895  
 Newman, George Hine, 1887  
 Newman, Kelsey Illidge, 1894  
 Newsham, Alice Isabel, 1900  
 Newton, Henry, 1889  
 Nicholls, William Hunt Ward, 1891  
 Nicholson, George Gibb, 1899  
 Noake, Reginald, 1877  
 Noake, Reginald Robert, 1904  
 Noakes, Mabel Alicia, 1896  
 Northcott, Clarence Hunter, 1905  
 Oakes, Florence Isabelle Mantell, 1905  
 O'Brien, Agnes Gertrude, 1895  
 O'Brien, Kathleen Moira, 1894  
 O'Brien, Lucius, 1865  
 O'Brien, Ormond, 1876  
 O'Brien, Patrick Daniel, 1894  
 O'Connor, Broughton B., 1892  
 O'Donohue, John P. Markham, 1895  
 O'Keefe, John A., 1887  
 O'Neill, James Bernard, 1895  
 O'Reilly, Hubert de Burgh, 1892  
 O'Reilly, Walter Creswell, 1903  
 Osborne, Henry Stuart, 1896  
 O'Sullivan, Daniel Roche, 1901  
 O'Sullivan, Eugene Francis, 1901  
 Oswald, Alfred William, 1903  
 Page, Arthur Ernest, 1899  
 Pain, Allan Franklyn, 1894  
 Pain, A. W., 1884 ‡  
 Paine, Bennington Haille, 1893  
 Paine, George Henry, 1894  
 Palmer, Selina Elizabeth, 1901  
 Paris, Jane Elizabeth, 1897  
 Parker, William Arthur, 1892  
 Parsons, Emily Waugh, 1899  
 Paterson, John, 1905  
 Paton, Arthur T., 1887  
 Paton, Mary Paterson, 1902  
 Pattinson, Anthony Walton, 1894  
 Paul, Alfred, 1905  
 Peden, John Beverley, 1892  
 Penman, John Edwards Foggon, 1897  
 Perkins, Joseph Abraham R., 1892  
 Persaké, Hermann, 1887  
 Petrie, Edith Maud, 1901  
 Phillips, Catherine Agnes, 1896  
 Phillips, Frederick George, 1902  
 Phillips, Reginald Bede, 1902  
 Pickburn, James Prosper, 1892  
 Piddington, Albert Bathurst, 1883  
 Pilcher, Charles E., 1865  
 Pilcher, George de Vial, 1859  
 Pilcher, Norman George Stafford, 1898  
 Pincombe, Torrington Hawke, 1890  
 Pitt, Arthur Gladstone Matcham, 1902  
 Poidevin, Leslie Oswald Sheridan, 1900  
 Poolman, Arthur Edward, 1883  
 Pope, Roland James, 1885  
 Potts, Cuthbert, 1898  
 Power, Percy Horne, 1901  
 Powell, James William Garnet, 1904  
 Pratt, Walter Henry, 1901  
 Prentice, Arthur James, 1892  
 Pritchard, Alice, 1895  
 Pritchard, William C., 1888  
 Purcell, Philip Francis, 1898  
 Purcell, Winifred Dalton, 1895  
 Purser, Cecil, 1885  
 Quaife, William F., 1879  
 Quigley, James, 1890  
 Quinn, John Joseph, 1905  
 Ramsay, James, 1885  
 Raves, George Alfred, 1897  
 Raves, Helen Alice, 1894  
 Redshaw, George, 1895  
 Read, Elizabeth Jane, 1899  
 Real, Edward Thynne, 1905  
 Redgrave, Leslie Alfred, 1905  
 Reid, Roberta Jane Sinclair, 1904  
 Reid, Violet Margaret, 1902

‡ Admitted *ad eundem gradum*.

- Reidy, John James Gralton, 1896  
 Rennie, George Edward, 1882  
 Renwick, Arthur, 1857  
 Renwick, Herbert John, 1893  
 Reynolds, Arthur J. P. G., 1890  
 Richardson, Charles Noel D., 1893  
 Richardson, Henry A., 1867  
 Riley, Patrick William, 1894  
 Riley, Spencer George Birkenhead, 1897  
 Riley, Valentine B., 1872  
 Roberts, Thomas Taylor, 1903  
 Robinson, Charles H. P., 1893  
 Robinson, George Frederick G., 1890  
 Robinson, Mabel Fuller, 1890  
 Robjohns, Leonard, 1894  
 Robson, Reginald Norman, 1900  
 Robson, William Elliott V., 1889  
 Rofe, Ruth Irene, 1904  
 Roger, Robert, 1876  
 Rogers, Percival Halse, 1905  
 Rooney, William James, 1892  
 Roseby, Gertrude Amy, 1895  
 Roseby, Minnie, 1895  
 Roseby, Sarah Mabel, 1900  
 Rossiter, Florence Annie, 1898  
 Roth-Schmidt, Frederica, 1897  
 Bourke, Ernest John, 1893  
 Bourke, George Augustus, 1893  
 Bourke, Lillie Agnes, 1895  
 Rowland, Norman de Horne, 1895  
 Rudder, Sydney Llewellyn, 1891  
 Russell, Charles Townsend, 1891  
 Russell, Ethel Albinia, 1893  
 Russell, Harry Ambrose, 1887  
 Russell, Henry Chamberlaine, 1859  
 Russell, Lillian, 1891  
 Rutherford, Constance Muriel, 1903  
 Rutherford, Florence Marion, 1900  
 Rutherford, Geo. Washington, 1900  
 Rutledge, William F., 1871  
 Ryan, Gerald, 1893  
 Ryan, James William, 1901  
 Rygate, Charles D. H., 1883  
 Rygate, Henry Bertram, 1885  
 Saddington, Arthur G., 1887  
 Sadler, Alexander, 1900  
 Salting, George, 1857  
 Salting, William, 1857  
 Sandford, Blanche Vavasour, 1902  
 Sands, John Marshall, 1889  
 Saunders, Arthur, 1893  
 Saunders, Eva Florence, 1897  
 Saunders, Florence Louisa, 1903  
 Saxby, George Campbell, 1891  
 Saywell, Thomas Stanley, 1900  
 Scarvell, Edric Sydney, 1893  
 Schrader, Cyril Petersen, 1904  
 Scoular, David, 1895  
 Scrutton, Caroline Maude, 1900  
 Seaward, William T., 1892  
 Seldon, Florence Mary, 1894  
 Sellors, Rich. Pickering, 1890  
 Sendall, Alfred E., 1888  
 Serisier, Lavigne Ernest, 1891  
 Shand, Alexr. B., 1884  
 Sharp, Walter Alex. Ramsay, 1897  
 Sharpe, Ernest, 1865  
 Sharpe, George Frederick, 1903  
 Sharpe, William George, 1897  
 Shaw, John A. K., 1885  
 Sheridan, Francis B., 1874  
 Sheridan, John Patrick, 1890  
 Sheridan, Muriel Eulalie Bingham, 1900  
 Sheppard, Edmund Haslewood, 1882  
 Sheppard, George, 1873  
 Sherlock, John Bolt, 1895  
 Shewcroft, Alfred John, 1893  
 Sinclair, Colin Archibald, 1899  
 Skillen, Elizabeth, 1904  
 Skillman, Jessie, 1905  
 Slack, Ella Mary, 1905  
 Slade, Oswald Carey, 1903  
 Sloman, Charles Wansbrough, 1893  
 Sloman, John, 1872  
 Smee, Reginald, 1901  
 Smith, Archibald, 1889  
 Smith, Emma Isabel, 1893  
 Smith, Norman, 1894  
 Smith, William, 1902  
 Somerville, George B., 1882  
 Spence, John, 1904  
 Sproule, Margaret, 1903  
 Squire, Hilton Bell, 1893  
 Stacy, Fitzroy Somerset, 1897  
 Stephen, Edward Milner, 1891  
 Stephen, Henry Montagu, 1900  
 Stephen, John William Farish, 1897  
 Stephenson, Anita Leila, 1901  
 Stevenson, Wm. Henry Webster, 1903  
 Stewart, Donald Grant, 1896  
 Stewart, James Robert, 1903  
 Stoney, Edmund Haighton, 1898

Stonham, Kathleen, 1895  
 Street, Charles James, 1894  
 Street, Philip Whistler, 1883  
 Studds, Harold Augustus, 1900  
 Studdy, Albert John, 1888  
 Studdy, Annie Avice Matilda, 1891  
 Sullivan, Denis Joseph, 1899  
 Sullivan, Henry, 1872  
 Sullivan, James, 1867  
 Sullivan, James, 1894  
 Sullivan, Reginald, 1892  
 Sutherland, Elmina Louise, 1891  
 Sutherland, Peter, 1890  
 Sutton, Mabel Harriett, 1904  
 Swanwick, Kenneth Foulkes, 1896  
 Swynny, William Frank, 1899  
 Symonds, Bertha Violet, 1897  
 Symonds, Daisy, 1893  
 Tange, Charles L., 1880  
 Tarplee, William F., 1884  
 Taylor, Sarah, 1893  
 Taylor, Thomas Manning, 1901  
 Tebbutt, Arthur Hamilton, 1905  
 Thallon, James B., 1876  
 Thomas, Richard Weld, 1893  
 Thompson, Alexander, 1895  
 Thompson, Robert Alfred, 1891  
 Thompson, Sydney A., 1887  
 Thomson, Alec, 1891  
 Thorburn, James Thos., 1886  
 Thorne, George, 1865  
 Thornton, Septimus, 1896  
 Tighe, William, 1892  
 Tivey, John Proctor, 1902  
 Todd, Frederick Augustus, 1901  
 Tole, Joseph, 1868  
 Tom, Wesley, 1860  
 Tomlinson, George Leigh, 1905  
 Townley, Percy L., 1886  
 Townsend, Samuel Edward, 1905  
 Tozer, Seymour Darvall, 1899  
 Trindall, Richard B., 1885  
 Turner, Annie Elizabeth, 1899  
 Uther, Allan Hammill, 1891  
 Uther, Jennie Bertha, 1894  
 Veech, Louis Stanislaus, 1890  
 Verge, John, 1899  
 Vickery, Ebenezer Frank, 1901  
 Waddell, Annie, 1895  
 Waddy, Ernest Frederick, 1905  
 Waddy, Percival Richard, 1891

Wade, Charles Gregory, 1905  
 Wade, Robert Thompson, 1905  
 Waldron, Thomas W. King, 1893  
 Walker, James Ernest, 1894  
 Walker, Samuel Herbert, 1894  
 Walker, William A., 1888  
 Wallace, Frank Ernest, 1889  
 Walsh, John James, 1899  
 Walton, George Henry Montague, 1899  
 Ward, Leonard Keith, 1900  
 Ward, Ruby Estelle, 1897  
 Ward, Thomas W. C., 1884  
 Wardrop, Gabriel, 1893  
 Wardrop, Maggie Robertson, 1903  
 Warren, Ernest William, 1898  
 Waterhouse, Eben Gowrie, 1903  
 Watt, Andrew Robert James, 1893  
 Watt, Charles Prosper, 1893  
 Watt, Percy Richard, 1904  
 Watson, Herbert Frazer, 1903  
 Watson, Robert S., 1887  
 Wearne, Amy Isabel, 1893  
 Wearne, Richard Arthur, 1895  
 Weatherburn, Charles Ernest, 1904  
 Weigall, Harold Walter, 1895  
 Wellisch, William Montague, 1903  
 West, Edith Annie, 1900  
 Wheeler, Arthur Russell, 1904  
 Wheeler, Harold Charles Fearon, 1902  
 White, Charles Alfred, 1895  
 Whitfeld, Eleanor Madeline, 1895  
 Whitfeld, Hubert Edwin, 1897  
 Whiting, Joseph, 1895  
 Wilkinson, Henry L., 1880  
 Wilkinson, Ida Beatrice, 1903  
 Wilkinson, W. Camac, 1878  
 Williams, Alfred James, 1898  
 Williams, James Leslie, 1892  
 Williams, John Alfred, 1894  
 Williams, Leslie Ballesat, 1899  
 Williams, William, 1891  
 Williams, William, 1895  
 Williams, William Henry, 1894  
 Williamson, Mark A., 1879  
 Williamson, Percy Leyden, 1899  
 Wilson, Frederick James, 1893  
 Wilson, George Harry, 1901  
 Wilson, Gwendolene Lilian, 1900

Wilson, Roger, 1877  
 Wilton, Edward Nowill, 1900  
 Windeyer, Richard, 1891  
 Windeyer, William Archibald, 1893  
 Wise, Bernhard R., 1885‡  
 Withycombe, Ernest John, 1899  
 Wolstenholme, Harry, 1890  
 Wood, Frederick Ernest, 1890  
 Wood, Frederick William, 1894

Wood, Harrie Dalrymple, 1893  
 Woodd, Henry A., 1887  
 Woodward, Frederick P., 1892  
 Woolcock, John L., 1883  
 Wootton, Ernest, 1892  
 Wright, Stewart, 1882  
 Yarnold, Isabel May, 1899  
 Yates, Malcolm Edwin, 1905  
 Young, James, 1900

## DOCTORS OF LAW.

His Royal Highness the Prince of  
 Wales, 1901‡  
 Barry, Alfred, 1884‡  
 Coghlan, Charles A., 1885  
 Cullen, William P., 1887  
 Donovan, John J., 1867  
 Green, Arthur V., 1887  
 Jefferis, James, 1885  
 Manning, J. Napoleon, 1892

Marden, John, 1890  
 Morris, Robert Newton, 1886  
 Roseby, Thomas, 1873  
 Sly, George J., 1878  
 Sly, Joseph D., 1873  
 Sly, Richard M., 1877  
 Waddell, George Washington, 1903  
 White, W. Moore, 1882‡

## BACHELORS OF LAW.

Abigail, Ernest Robert, 1899  
 d'Apice, Antoine William M., 1904  
 Armstrong, Laurens F. M., 1890  
 Arnold, Austin Guerrey de Lauret,  
 1903  
 Barraclough, Francis Egerton, 1899  
 Bavin, Thomas Rainsford, 1897  
 Bloomfield, William John, 1899  
 Boyce, Francis Stewart, 1896  
 Brierley, Frank Nunan, 1897  
 Broderick, Cecil Thomas Hawkes,  
 1902  
 Browne, Joseph Alexander, 1904  
 Butler, Spencer Joseph St. Clair, 1896  
 Chapman, Alfred Ernest, 1903  
 Clark, Francis George, 1902  
 Clegg, William Carnegie, 1901  
 Clines, Peter Joseph, 1898  
 Coffey, Francis Louis Verhulst, 1896  
 Cohen, Alroy Maitland, 1905  
 Craig, Charles, 1900  
 Creagh, William John, 1897  
 Cullinane, John Aloysius, 1897  
 Curlewis, Herbert Raine, 1892  
 Curtis, William John, 1904  
 Davidson, Colin George Watt, 1901  
 Davies, Arthur Bernard, 1897

Davies, Wyndham John E., 1895  
 Edmunds, Walter, 1881  
 Edwards, David Sutherland, 1899  
 Elphinstone, James Cooke, 1898  
 Evans, Ada Emily, 1902  
 Evans-Jones, David Pentland, 1904  
 Fahey, Bartley Francis, 1904  
 Ferguson, John Alexander, 1905  
 Flannery, George Ernest, 1894  
 Forsyth, Walter George, 1900  
 Gerber, Edward W. T., 1894  
 Gill, Alfred Chalmers, 1895  
 Green, Henry Mackenzie, 1905  
 Halloran, Aubrey, 1894  
 Hammond, John Harold, 1898  
 Harris, George, 1893  
 Higgins, Percy Reginald, 1895  
 Hinton, William Samuel, 1904  
 Hodge, Sydney Trevillian, 1905  
 Holliday, Andrew, 1903  
 Holme, John Barton, 1895  
 Jones, Albert E., 1889‡  
 Kelynack, Arthur James, 1892  
 Kemp, Richard Cyril King, 1905  
 Kershaw, Joseph Cuthbert, 1896  
 Kilgour, Alexander James, 1904  
 Knox, Adrian, 1895‡

Legge, James Gordon, 1890  
 Lehané, Thomas Joseph, 1903  
 Levy, Daniel, 1895  
 Lindsay, William Carlaw, 1905  
 Mack, Sidney, 1892  
 McLaren, Alexander Duncan, 1903  
 Manning, Henry Edward, 1902  
 Martin, Lewis Ormsby, 1895  
 Meares, Hercules, 1894  
 Meillon, John, 1892  
 Merewether, Hugh Hamilton Mitchell, 1898  
 Merewether, William David Mitchell, 1898  
 Mills, Percy Harcourt, 1897  
 Mitchell, Ernst Meyer, 1900  
 Monahan, William Willis, 1900  
 Nathan, Edward Alleyne, 1891  
 O'Brien, Patrick Daniel, 1897  
 O'Connor, Broughton B., 1895  
 O'Donohue, John P. Markham, 1902  
 O'Reilly, Hubert de Burgh, 1894  
 Parker, William Arthur, 1898  
 Peden, John Beverley, 1898  
 Pickburn, James Prosper, 1894  
 Pilcher, Norman George Stafford, 1901  
 Pitt, Arthur Gladstone M., 1904  
 Quick, John, 1881 ‡  
 Richardson, Charles Noel Derwent, 1900  
 Robson, Reginald Norman, 1903  
 Rogers, Francis E., 1867  
 Rogers, William Arnott Halse, 1903

Rutherford, George Washington, 1902  
 Saywell, Thomas Stanley, 1902  
 Scarvell, Edric Sydney, 1896  
 Scoular, David, 1899  
 Sinclair, Colin Archibald, 1905  
 Slade, Oswald Carey, 1905  
 Stacy, Fitzroy Somerset, 1901  
 Stephen, Henry Montagu, 1903  
 Sullivan, Reginald, 1900  
 Swanwick, Kenneth ffoulkes, 1905  
 Taylor, John Michael, 1893  
 Teece, Richard Clive, 1903  
 Thompson, Joseph, 1869  
 Thomson, Alec, 1894  
 Tighe, William, 1894  
 Tole, Joseph, 1869  
 Tozer, Seymour Darvall, 1901  
 Uther, Allan Hammill, 1893  
 Varley, Charles Grant, 1902 ‡  
 Veech, Louis Stanislaus, 1893  
 Vickery, Ebenezer Frank, 1904  
 Waddy, Percival Richard, 1893  
 Waldron, Thomas W. King, 1895  
 Wallace, Frank Ernest, 1899  
 Walker, James Ernest, 1896  
 Walton, George Henry Montague, 1902  
 Warren, Ernest William, 1900  
 Watson, Herbert Frazer, 1905  
 Watt, Andrew R. J., 1894  
 Wilson, George Harry, 1904  
 Wood, Harrie Dalrymple, 1896  
 Yarrington, W. H. H., 1887  
 Young, James, 1902

## DOCTORS OF MEDICINE.

Bennet, Francis Alexander, 1896 ‡  
 Barret, James, 1873  
 Belgrave, T. B., 1882 ‡  
 Blackburn, Charles Bickerton, 1903  
 Blair, John, 1877  
 Chisholm, William, 1887 ‡  
 Cleland, John Burton, 1902  
 Corlette, Cyril Ernest, 1895  
 Davis, James Shedden, 1905  
 Flashman, James Froude, 1897  
 Gillies, Sinclair, M.D. ‡  
 Hall, Edwin Cuthbert, 1904  
 Houston, James, 1870  
 Jenkins, Edward Johnstone, 1886 ‡

Jones, Richard T., 1874  
 Knaggs, Samuel T., 1882 ‡  
 Lloyd, Frederick, 1872  
 Lyden, Michael John, 1892 ‡  
 McDonnell, Aeneas J., 1896  
 McMurray, Wahab, 1892 ‡  
 Magarey, Frank William Ashley, 1903  
 Maher, W. Odillo, 1884 ‡  
 Moore, George, 1872  
 Morton, Selby, 1877  
 Mullins, George Lane, 1890 ‡  
 Munro, William John, 1901 ‡  
 Nash, John Brady, 1903 ‡  
 Oram, Arthur Murray, 1882 ‡

O'Reilly, Walter William J., 1882‡  
 Ross, Chisholm, 1886  
 Rowan, Thomas, 1882  
 Sandes, Francis Percival, 1903  
 Smith, Grafton Elliott, 1895  
 Stacy, Harold Skipton, 1901  
 Stewart, Charles, 1872

Stuart, T. P. Anderson, 1889‡  
 Taylor, Charles, 1872  
 Wade, Robert Blakeway, 1904  
 Warren, William Edward, 1882‡  
 Wilson, Thomas George, 1904  
 Worrall, Ralph, 1886‡

## BACHELORS OF MEDICINE.

Abbott, George Henry, 1891  
 Adams, Francis Charles, 1904  
 Affleck, Ada C., 1898  
 Aiken, Percy Norman, 1903  
 Ambrose, Theodore, 1902  
 Anderson, Arthur, 1902  
 Anderson, Hugh Miller, 1902  
 Andrews, William, 1887‡  
 Armstrong, William G., 1888  
 Bancroft, Peter, 1888  
 Barling, James Eric Vernon, 1900  
 Barnes, Edmund Horatio, 1897  
 Barton, John à Beckett Darvall, 1901  
 Bell, Henry Charles Rikard, 1904  
 Benjafield, Vivian, 1904  
 Bennetts, Harold Graves, 1896  
 Biffin, Harriett Eliza, 1898  
 Binney, Edward Harold, 1893  
 Blaney, Henry Patrick, 1903  
 Bligh, Erasmus A. R., 1905  
 Blue, Archibald Irwin, 1901  
 Böhrsmann, Gustav Hall, 1898  
 Böhrsmann, Rudolph Hermann, 1894  
 Boelke, Paul, 1893  
 Bond, Lionel Wilfred, 1904  
 Bourne, Eleanor Elizabeth, 1903  
 Bowker, Cedric Victor, 1898  
 Brade, Gerald Francis, 1899  
 Brennand, H. John Wolverton, 1899  
 Broadbent, Percy Lewis, 1902  
 Broinowski, Gracius Herbert, 1897  
 Browne, Claude Seccombe, 1904  
 Buchanan, George Arthur, 1904  
 Burfitt, Walter Fitzmaurice, 1900  
 Burge, Stephen Bruce, 1900  
 Burkitt, Edmund Henry, 1896  
 Busby, Hugh, 1900  
 Cahill, John Hampton, 1903  
 Cameron, Donald Allan, 1900  
 Cargill, William Duthie, 1899  
 Carlile-Thomas, Julia, 1898  
 Challands, Frederick, 1892

Chenhall, William Thomas, 1897‡  
 Chisholm, Edwin Claude, 1904  
 Clarke, Gother Robert Carlisle, 1902  
 Clarke, Philip Sylvester, 1903  
 Coen, Joseph, 1905  
 Coghlan, Iza Frances Josephine, 1893  
 Combes, Edgar William Anthony, 1902  
 Conlon, William Aloysius, 1896  
 Connolly, Thomas Patrick, 1904  
 Conroy, Lionel Bigoe Hensell, 1903  
 Cooley, Percy Glover, 1898  
 Cope, Hubert Roger, 1898  
 Corbin, Albert George, 1900  
 Corfe, Anstruther John, 1903  
 Cosh, John Inglis Clark, 1897  
 Cox, Frederick Henry, 1895  
 Cox, Harrie, 1900  
 Craig, Robert Gordon, 1894  
 Crawley, Aubrey Joseph C., 1896  
 Dansey, St. John Warburton, 1903  
 D'Arcy, Constance Elizabeth, 1904  
 Davies, Reginald Laidlaw, 1901  
 Davidson, Leslie G., 1888  
 Deck, George Henry Baring, 1896  
 Deck, John Northcote, 1900  
 Delohery, Henry Charles, 1899  
 Dey, Robert, 1898  
 Dick, Robert, 1892  
 Dight, William Billingsley, 1902  
 Dixon, Graham Patrick, 1897  
 Dunlop, Norman John, 1896  
 Durack, William Joseph, 1900  
 Eichler, Wm. Otto Heldmuth, 1900  
 Ellis, Lawrence Edward, 1898  
 Elworthy, William Henry, 1903  
 Fairfax, Edward Wilfred, 1899  
 Farrell, Robert Meredith, 1897  
 Finckh, Alfred Edmund, 1905  
 Fitzpatrick, Edward Bede Lucien, 1903

‡ Admitted *ad eundem gradum*.



Flashman, Charles Ernest, 1903  
 Flecker, Oscar Sydney, 1902  
 Fordyce, Henry St. Clair, 1895  
 Forster, Redmond Clarence Hall, 1901  
 Fox, Hedley Ebenezer, 1903  
 Freshney, Reginald, 1892  
 Garde, Henry Lee, 1901  
 Godsall, Robert Spencer, 1904  
 Goergs, Karl Randolph Wilhelm, 1905  
 Goldsmid, Albert, 1895  
 Graham, James, 1886‡  
 Graham, Mabel Jessie, 1900  
 Grant, William, 1905‡  
 Green, Terence Albert, 1893  
 Greenham, Eleanor Constance, 1901  
 Grey, William Charles, 1903  
 Griffiths, Frederick Guy, 1900  
 Gullett, Lucy Edith, 1900  
 Halcombe, Charles Digby, 1902  
 Hall, George Reginald Percy, 1895  
 Halliday, John Charles W., 1896  
 Handcock, Charles Lancelot, 1894  
 Hardman, Robert, 1900  
 Harris, Walter Eli, 1900  
 Harris, Lawrence Herschell Levi, 1896  
 Harris, William Henry, 1897  
 Hart, Basil Lloyd, 1900  
 Heggaton, Rupert Dufty, 1900  
 Henry, Arthur, 1889  
 Henry, Arthur G., 1888  
 Higgins, Frederick Charles, 1897  
 Hinder, Henry V. C., 1889  
 Hipsley, Percy Leslie, 1903  
 Holland, John Joseph, 1905  
 Holmes, Harry Glennie, 1900  
 Holt, Arthur Christian, 1901  
 Horton, William Henry, 1902  
 Hughes, Michael O'Gorman, 1895  
 Humphery, Esca Morris, 1903  
 Hunt, Claude Leopold W., 1891  
 Hunter, William Allen, 1902  
 Kater, Norman William, 1898  
 Kay, Stuart, 1905  
 Kelly, Patrick J., 1889  
 King, Aubrey Arthur, 1900  
 Kinross, Robert Menzies, 1894  
 Jackson, John William, 1895

Jones, Philip Sydney, 1900  
 Lancaster, Llewellyn Bentley, 1896  
 Langton, William Digan, 1903  
 Latham, Oliver, 1903  
 Lawes, Charles H. E., 1892  
 Leahy, John P. D., 1892  
 Lee, Henry Herbert, 1901  
 Lees, Geoffrey John, 1900  
 Leslie, James Robert, 1905  
 Lethbridge, Harold Octavius, 1904  
 Lipscomb, Thomas Walter, 1898  
 Litchfield, William Frederick, 1893  
 Lister, Henry, 1892  
 Llewellyn, Rees Frank, 1902  
 Ludowici, Edward, 1899  
 Luker, Donald, 1894  
 McClelland, Walter Cecil, 1896  
 MacCreadie, John Laing Martin, 1894  
 McCredie, Robert William, 1901  
 McDowall, Valentine, 1905  
 McEncroe, James Michael, 1905  
 McEvoy, John Joseph Stuart, 1900  
 Macintosh, Alexander Hay, 1901  
 McKay, William John S., 1891  
 McKelvey, John Lawrence, 1905  
 Mackenzie, John, 1899  
 Mackinnon, Roger Robert S., 1894  
 McLean, George, 1900  
 MacMaster, Donald Æneas Dunlop, 1899  
 MacPherson, John, 1898  
 Maffey, Reginald William H., 1900  
 Maitland, Herbert L., 1892  
 Marr, Gordon William Singer, 1901  
 Marsden, Ernest Ambrose, 1901  
 Marsh, Harold Seaward, 1903  
 Mason, Thomas William, 1903  
 Mawson, William, 1904  
 Menzies, Guy Dixon, 1896  
 Millard, Reginald Jeffrey, 1891  
 Mills, Arthur Edward, 1889  
 Moncrieff, Edward Woods, 1902  
 Morton, Gavin, 1890  
 Morton, John, 1890  
 Murray, George Lathrop, 1894  
 Muscio, Allan, 1902  
 Newton, Alice Sarah, 1898  
 Newman, Ernest Ludlow, 1903  
 Newton, Wm. Thomas Joseph, 1900

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‡ Admitted *ad eundem gradum*.



- Nolan, Herbert Russell, 1890  
 Oakes, Arthur, 1881‡  
 O'Connor, Arthur Charles, 1896  
 O'Keefe, John James, 1898  
 O'Reilly, Susannah Hennessy, 1905  
 Old, George Greensil, 1900  
 Olver, William Reath, 1900  
 Osborne, John King, 1903  
 Page, Earle Christmas Grafton, 1902  
 Pain, Ernest Maynard, 1897  
 Park, Joseph, 1892  
 Paton, James Wright, 1900  
 Perkins, Alfred E., 1888  
 Perkins, Richard, 1904  
 Phillips, Arthur Bradridge, 1904  
 Plomley, Morris James, 1903  
 Pockley, Eric Osbaldiston, 1900  
 Pockley, Frank Antill, 1888‡  
 Power, John Wardell, 1905  
 Puleine, Robert Henry, 1898  
 Purser, Cecil, 1890  
 Read, William Henry, 1898  
 Rees, Walter Llewellyn, 1902  
 Richards, Samuel J., 1893  
 Roberts, Alfred John Spencer C., 1905  
 Robertson, Lionel Joseph, 1903  
 Robinson, Grace Fairley, 1893  
 Robison, Erskine Hugh, 1896  
 Roe, James Martin, 1900  
 Roseby, Edmund Rupert, 1900  
 Rutledge, David D., 1888  
 Sadler, Henry Frank, 1903  
 Savage, Edward Joseph, 1900  
 Savage, Vincent Wellesley, 1901  
 Sawkins, Frederick John T., 1892  
 Scot-Skirving, Robert, 1888‡  
 Scott, Edward Henry, 1893  
 Seldon, William, 1902  
 Sharp, Granville Gilbert, 1904  
 Sharp, W. Alexander Ramsay, 1902  
 Shaw, Frederick C. S., 1892  
 Sheldon, Herbert, 1898  
 Sheldon, Stratford, 1896  
 Shellshear, Cyril, 1905  
 Sheppard, Arthur Murray, 1890  
 Shirlow, Sydney Stewart, 1892  
 Shirlow, William John, 1892  
 Shorter, Herbert Leopold Ashton, 1899  
 Simpson, Francis George Macneill, 1905  
 Smith, Percy Edward Walton, 1905  
 Smith, Stewart Arthur, 1903  
 Spark, Ernest James T., 1895  
 Stanley, George Percival, 1891  
 Stephen, Edgar Horatio Milner, 1902  
 Stevens, William Woodburn, 1898  
 Stokes, Edward Sutherland, 1891  
 Stuckey, Francis Seavington, 1902  
 Studdy, William Bradridge, 1895  
 Suckling, Frank Martin, 1903  
 Sweet, Geoffrey Bruton, 1893  
 Tange, Frank Septimus, 1902  
 Tarleton, John Willington, 1902  
 Taylor, Charles James, 1900  
 Terrey, Hedley, 1897  
 Thomas, George Bowen, 1901  
 Thomson, Jack Mowbray, 1903  
 Tidswell, Frank, 1892  
 Throsby, Herbert Zouch, 1898  
 Townley, Percy Langford, 1890  
 Trindall, Richard B., 1889  
 Tudor-Jones, Evan, 1902  
 Ure, Edith, 1902  
 Ure, Sarah Louisa, 1905  
 Vallack, Arthur Styles, 1893  
 Veech, Michael, 1894  
 Verco, Clement Armour, 1901  
 Verco, Sydney Manton, 1900  
 Verge, Arthur, 1905  
 Vernon, Geoffrey Hampden, 1905  
 Vernon, Murray Menzies, 1904  
 Vivers, George Arthur, 1904  
 Wallace, Donald, 1902  
 Walton, William Bain, 1898  
 Walton, John Francis, 1903  
 Wassell, Joseph Leathom, 1897  
 Watson, James Frederick, 1903  
 Waugh, Richard Andrew Phipps, 1903  
 West, Francis William, 1900  
 Whiteman, Reginald John Nelson, 1905  
 Willis, Charles Savill, 1899  
 Windeyer, John Cadell, 1899  
 Woolnough, Robert Edmund, 1903  
 Young, Edgar Harold, 1905  
 Zlotkowski, Frederic Sobieski Wladimir, 1896

## MASTERS OF SURGERY.

- Abbott, George Henry, 1891  
 Affleck, Ada C., 1898  
 Ambrose, Theodore, 1902  
 Anderson, Arthur, 1902  
 Anderson, Hugh Miller, 1902  
 Armstrong, William G., 1888  
 Bancroft, Peter, 1888  
 Barling, James Eric Vernon, 1901  
 Barnes, Edmund Horatio, 1897  
 Barton, John a'Beckett Darvall, 1901  
 Bell, Harry Charles Rikard, 1904  
 Benjafield, Vivian, 1904  
 Bennetts, Harold Graves, 1896  
 Biffin, Harriett Eliza, 1898  
 Binney, Edward Harold, 1893  
 Blackburn, Charles Bickerton, 1899  
 Bligh, Erasmus A. R., 1905  
 Blue, Archibald Irwin, 1901  
 Boelke, Paul, 1893  
 Böhrsmann, Gustav Hall, 1898  
 Böhrsmann, Rudolph Hermann, 1894  
 Bond, Lionel Wilfred, 1904  
 Bourne, Eleanor Elizabeth, 1903  
 Brennand, Henry John W., 1899  
 Broadbent, Percy Lewis, 1902  
 Browne, Claude Seccombe, 1904  
 Buchanan, George Arthur, 1904  
 Burfitt, Walter Fitzmaurice, 1900  
 Busby, Hugh, 1900  
 Cameron, Donald Allan, 1901  
 Cargill, William Duthie, 1899  
 Carlile-Thomas, Julia, 1898  
 Challands, Frederick, 1892  
 Chisholm, Edwin Claude, 1904  
 Clarke, Gother Robert Carlisle, 1902  
 Clarke, Philip Sylvester, 1903  
 Cleland, John Burton, 1900  
 Coghlan, Iza Frances Josephine, 1893  
 Combes, Edgar Wm. Anthony, 1902  
 Connolly, Thomas Patrick, 1904  
 Conlon, William Aloysius, 1898  
 Cooley, Percy Glover, 1898  
 Corbin, Alfred George, 1900  
 Corfe, Anstruther John, 1904  
 Corlette, Cyril Ernest, 1892  
 Cosh, John Inglis Clark, 1897  
 Craig, Robert Gordon, 1894  
 Crawley, Aubrey Joseph C., 1896  
 Dansey, St. John Warburton, 1903  
 D'Arcy, Constance Elizabeth, 1904  
 Davies, Reginald Laidlaw, 1901  
 Davidson, Leslie G., 1888  
 Davis, James Shedden, 1903  
 Deck, George Henry Baring, 1901  
 Deck, John Northcote, 1902  
 Dey, Robert, 1898  
 Dick, Robert, 1892  
 Dight, Wilfred Billingsley, 1902  
 Dixon, Graham Patrick, 1897  
 Dunlop, Norman John, 1896  
 Durack, William Joseph, 1905  
 Eichler, Wm. Otto Heldmuth, 1900  
 Ellis, Lawrence Edward, 1898  
 Elworthy, William Henry, 1903  
 Fairfax, Edward Wilfred, 1899  
 Farrell, Robert Meredith, 1897  
 Fitzpatrick, Edward Bede L., 1903  
 Flashman, James Froude, 1894  
 Flecker, Oscar Sydney, 1902  
 Fordyce, Henry St. Clair, 1895  
 Forster, Redmond Clarence Hall, 1901  
 Fox, Hedley Ebenezer, 1905  
 Freshney, Reginald, 1892  
 Garde, Henry Lee, 1901  
 Godsall, Robert Spencer, 1904  
 Goergs, Karl R. W., 1905  
 Graham, Mabel Jessie, 1902  
 Greenham, Eleanor Constance, 1901  
 Grey, William Charles, 1903  
 Gullett, Lucy Edith, 1901  
 Hall, Edwin Cuthbert, 1898  
 Hall, George R. P., 1895  
 Halliday, John Charles W., 1896  
 Handcock, Charles Lancelot, 1894  
 Harris, Lawrence Herschell L., 1896  
 Harris, William Henry, 1897  
 Harris, Walter Eli, 1900  
 Hart, Basil Lloyd, 1901  
 Henry, Arthur, 1889  
 Henry, Arthur G., 1888  
 Higgins, Frederick Charles, 1897  
 Hinder, Henry V. C., 1889  
 Hipsley, Percy Leslie, 1903  
 Holmes, Harry Glennie, 1900  
 Humphery, Esca Morris, 1903  
 Hunt, Claude Leopold W., 1891  
 Jackson, John W., 1895  
 Jones, Philip Sydney, 1901  
 Kater, Norman William, 1898  
 Kay, Stuart, 1905

- King, Aubrey Arthur, 1900  
 Kinross, Robert Menzies, 1894  
 Lancaster, Llewellyn Bentley, 1901  
 Langton, William Digan, 1903  
 Lawes, Charles H. E., 1892  
 Leahy, John P. D., 1892  
 Lee, Henry Herbert, 1901  
 Leslie, James Robert, 1905  
 Lethbridge, Harold Octavius, 1904  
 Lipscomb, Thomas Walter, 1898  
 Ludowici, Edward, 1899  
 Luker, Donald, 1894  
 McClelland, Walter Cecil, 1896  
 MacCreadie, John Laing Martin, 1894  
 McCredie, Robert William, 1901  
 McDonnell, Æneas J., 1889  
 McEncroe, James Michael, 1905  
 Macintosh, Alexander Hay, 1901  
 McKay, William John S., 1891  
 Mackenzie, John, 1899  
 Mackinnon, Roger R. S., 1894  
 McLean, George, 1900  
 MacMaster, Donald Æneas D., 1899  
 MacPherson, John, 1898  
 Magarey, Frank William A., 1899  
 Maitland, Herbert L., 1892  
 Marsden, Ernest Ambrose, 1901  
 Mawson, William, 1904  
 Menzies, Guy Dixon, 1896  
 Millard, Reginald Jeffrey, 1891  
 Mills, Arthur Edward, 1889  
 Moncrieff, Edward Woods, 1902  
 Morton, Gavin, 1890  
 Morton, John, 1890  
 Murray, George Lathrop, 1894  
 Newton, Alice Sarah, 1898  
 Nolan, Herbert Russell, 1903  
 O'Connor, Arthur Charles, 1896  
 Olver, William Reath, 1901  
 Osborne, John King, 1903  
 Page, Earle Christmas Grafton, 1902  
 Pain, Ernest Maynard, 1897  
 Park, Joseph, 1892  
 Perkins, Alfred E., 1888  
 Perkins, Richard, 1904  
 Phillips, Arthur Bradridge, 1904  
 Plomley, Morris James, 1903  
 Pockley, Eric Osbaldiston, 1901  
 Power, John Wardell, 1905  
 Purser, Cecil, 1890  
 Read, William Henry, 1898  
 Rees, Walter Lewellyn, 1902  
 Richards, Samuel J., 1896  
 Roberts, Alfred John Spencer C., 1905  
 Robinson, Grace Fairley, 1893  
 Robison, Erskine Hugh, 1896  
 Roseby, Edmund Rupert, 1902  
 Rutledge, David D., 1888  
 Sandes, Francis Percival, 1899  
 Savage, Edward Joseph, 1901  
 Savage, Vincent Wellesey, 1901  
 Sawkins, Frederick John T., 1892  
 Scott, Edward Henry, 1893  
 Sharp, Granville Gilbert, 1904  
 Sharp, Walter Alex. Ramsay, 1902  
 Shaw, Frederick C. S., 1892  
 Sheldon, Herbert, 1898  
 Sheldon, Stratford, 1896  
 Shellshear, Cyril, 1905  
 Sheppard, Arthur Murray, 1890  
 Shirlow, Sydney Stewart, 1892  
 Shirlow, William John, 1892  
 Simpson, Francis G. N., 1905  
 Smith, Grafton Elliott, 1893  
 Smith, Percy Edward Walton, 1905  
 Smith, Stewart Arthur, 1903  
 Spark, Ernest J. T., 1895  
 Stacy, Harold Skipton, 1898  
 Stanley, George Percival, 1891  
 Stephen, Edgar Horatio Milner, 1904  
 Stevens, William Woodburn, 1900  
 Stokes, Edward Sutherland, 1891  
 Stuckey, Francis Seavington, 1902  
 Studdy, William B., 1895  
 Suckling, Frank Martin, 1903  
 Sweet, Geoffrey Bruton, 1893  
 Tange, Frank Septimus, 1902  
 Taylor, Charles James, 1900  
 Terrey, Hedley, 1900  
 Thomas, George Bowen, 1901  
 Thomson, Jack Mowbray, 1903  
 Tidswell, Frank, 1892  
 Townley, Percy Langford, 1890  
 Trindall, Richard B., 1889  
 Tudor-Jones, Evan, 1902  
 Ure, Edith, 1902  
 Vallack, Arthur Styles, 1893  
 Veech, Michael, 1894  
 Verco, Sydney Manton, 1900  
 Verge, Arthur, 1905  
 Verco, Clement Armour, 1901  
 Vernon, Murray Menzies, 1904  
 Vivers, George Arthur, 1904  
 Walton, William Bain, 1898

## MASTERS OF ENGINEERING.

Wassell, Joseph Leathom, 1897  
 Watson, James Frederick, 1903  
 West, Francis William, 1900  
 Whiteman, Reginald J. Nelson, 1905  
 Willis, Charles Savill, 1899

Wilson, Thomas George, 1899  
 Windeyer, John Cadell, 1899  
 Woolnough, Robert Edmund, 1903  
 Young, Edgar Harold, 1905  
 Zlotkowski, Frederic Sob. W., 1896

## LICENTIATES IN DENTAL SURGERY.

Barnes, Margaret Estelle, 1905  
 Bond, Harold Henry, 1905  
 Boys, Reginald Septimus, 1905  
 Bradley, John Houghton, 1904  
 Burkitt, Cyril Theodore, 1905  
 Clark, John James, 1905  
 Crouch, Frederick Richard, 1904  
 Dolan, Alfred Pearson Berkeley, 1904

Hardie, Howard Gordon, 1905  
 MacTaggart, Edgar Alexander, 1904  
 Moxham, Cecil George, 1905  
 Neale, James Harold, 1905  
 Neave, Bevan Walter, 1904  
 Praed, Annie, 1904  
 Starkey, John Norman, 1905  
 Stockwell, Leslie George, 1904

## DOCTORS OF SCIENCE.

Petrie, James Matthew, 1905  
 Pollock, James Arthur, 1905

Woolnough, Walter George, 1904

## BACHELORS OF SCIENCE.

d'Apice, John Edmund F., 1900  
 Bennett, Agnes Elizabeth L., 1894  
 Birks, Lawrence, 1901½  
 Boyd, Arthur, 1901  
 Brearley, Joseph Henry Draper, 1894  
 Brennan, Sarah Octavia, 1898  
 Burfitt, Walter Fitzmaurice, 1898  
 Close, John Campbell, 1903  
 Corbin, Albert George, 1895  
 Crane, John T., 1887  
 Davis, Agnes Marianne Harrison, 1898  
 Dunlop, Norman John, 1895  
 Flashman, James Froude, 1893  
 Fletcher, Archibald W., 1888  
 Forde, James, 1893  
 Gray, George James, 1905  
 Hall, George Reginald Percy, 1893  
 Harker, George, 1899  
 Harris, Marian, 1902  
 Heden, Ernest Charles Burgess, 1901  
 Horton, Marion Charlotte, 1897  
 Hughes, Michael O'Gorman, 1893  
 Hunt, Fanny E., 1888  
 Jensen, Harold Ingemann, 1904  
 Johnston, Stephen Jason, 1902

Jordan, Geo. Edward Gustavus, 1901  
 Leverrier, Frank, 1885  
 MacMaster, D. Aeneas Dunlop, 1897  
 McClelland, Walter Cecil, 1894  
 McKay, William J. S., 1887  
 MacPherson, John, 1896  
 Madsen, John Percival Viassing, 1900  
 Mason, William Henry, 1905  
 Mawson, Douglas, 1905  
 Mort, Harold Sutcliffe, 1901  
 O'Reilly, Susannah Hennessey, 1903  
 Peterson, Arthur James, 1901  
 Robison, Erskine Hugh, 1894  
 Ross, William John Clunies, 1891½  
 Sharp, Granville Gilbert, 1902  
 Sheldon, Stratford, 1894  
 Shirley, John, 1887½  
 Taylor, Thomas Griffith, 1904  
 Vonwiller, Oscar Ulric, 1902  
 Waterhouse, Gustavus Athol, 1899  
 Watt, John Alexander, 1894  
 Weatherburn, Charles Ernest, 1905  
 Weston, Percy Leonard, 1901  
 Wilson, Richard Cunliffe, 1901  
 Wood, E. Clarence, 1885

## MASTERS OF ENGINEERING.

Bradfield, John Job Crew, 1896  
 Cook, Walter Edmund, 1899½  
 Dare, Henry Harvey, 1894

MacTaggart, John Norman C., 1905  
 Vicars, James, 1892

## BACHELORS OF ENGINEERING.

*(Civil Engineering.)*

Amphlett, Edward Albin, 1889	Madsen, John Percival Vissing, 1901
Amphlett, Henry Martin, 1897	Martyn, Athelstan Markham, 1905
Arnott, Robert Fleming, 1895	Mathison, Walter Charter, 1899
Barraclough, Samuel Henry, 1892	Merewether, Edward A. M., 1885
Beaver, William Richard, 1899	Myers, Harold Walter, 1901
Birch, William John, 1891	Platt, Cecil Percival, 1905
Bowman, Archer, 1889	Poole, William, 1900
Boyd, Arthur, 1902	Roberts, James Waller, 1892
Boyd, Robert James, 1898	Ross, Colin John, 1891 <sup>†</sup>
Brearley, Joseph Henry D., 1895	Rowlands, Harold Berkeley, 1897
Bucknell, Louis Geoffrey, 1891	Rygate, Philip W., 1885
Colyer, Moreton John Godden, 96	Sawyer, Basil, 1896
Corfe, Duncan Bertram, 1903	Seale, Herbert Percy, 1894
Corlette, James Montagu Christian, 1902	Smail, Herbert Stuart Inglis, 1897
Craig, Alexander Donald, 1895	Smail, James Alexander Moore, 1905
Deane, Henry James, 1897	Stephens, Charles Thomas, 1892
Doak, Walter James, 1895	Strickland, Tom Percival, 1897
Fitz, Norman, 1888	Thompson, William Mann, 1886
Hawken, Roger William H., 1900	Wallach, Bernard, 1897
Hayley, Percy Edmund Llewellyn, 1893	Ward, Thos. Wm. Chapman, 1886
Henning, Edmund Tregenna, 1903	Warren, Ernest William, 1897
Hole, William Francis, 1896	White, Norman Frederick, 1894
Jackson, Clements F. V., 1895	Wood, Ebenezer Clarence, 1885
Ledger, William Henry, 1893	Wood, James Patrick, 1895
	Woore, John Morris Simeon, 1896

*(Mining and Metallurgy.)*

Armstrong, John Nicholas Fraser, 1904	Dart, Riverine Norman, 1904
Ball, Lionel Clive, 1900	Davies, Harry Warlow, 1903
Barker, Reginald Frederick, 1900	Debenham, Arthur John, 1903
Barr, James, 1904	Delohery, Ernest Cecil, 1903
Bennett, Vyvyan Christopher, 1904	Dight, Arthur Hilton, 1905
Black, Reginald Austin Wm., 1898	Dixon, James Thomson, 1895
Boyd, William Sprott, 1901	Docker, Alfred Brougham, 1903
Boydell, William Guy Broughton, 1905	Foy, Leslie Harold, 1903
Burgess, John Henry, 1905	Freeman, Ambrose William, 1904
Caddy, James Pascoe, 1903	Freeman, Charles Cuthbert, 1902
Cameron, Colin Bowman, 1902	Garde, Henry Thomas, 1903
Campbell-Brown, George Frederick, 1905	Garry, John Joseph Patrick, 1905
Caro, Phillip, 1904	Giblin, Norman Ernest, 1903
Clayton, Cyril Henry Joseph, 1903	Gibson, Charles George, 1900
Cohen, Arthur Francis, 1904	Gorringe, Lloyd Septimus, 1901
Corlette, James Montagu Christian, 1903	Gould, Hubert John, 1902
	Gray, George James, 1903
	Gregson, William Hilder, 1901
	Grut, Charles Frederick de Jersey, 1901

<sup>†</sup> Admitted *ad eundem gradum*.

Hall, Ernest Kingsbury, 1903  
 Harris, Herbert Theodore Rawson, 1905  
 Heden, Ernest Charles Burgess, 1902  
 Isaacs, Robert McIntosh, 1904  
 Hill, James Henry Fraser, 1904  
 Jack, Robert Lockhart, 1899  
 Jackson, Clements Frederick V., 1900  
 Jackson, Frederick Henry, 1903  
 Jenkins, Charles Warren B., 1895  
 McArdle, Frederick Owen, 1904  
 McCrae, Arthur Gordon, 1903  
 Mack, Augustus Charles, 1902  
 Mawson, Douglas, 1902  
 More, George Allan, 1901  
 Morris, John Fossbrook, 1899  
 Mort, Selwyn Robert, 1900  
 Nardin, Ernest Willoughby, 1894  
 Nardin, Collis Carleton, 1905  
 Newman, James Malcolm, 1901  
 Owen, Tom Mackellar, 1905  
 Palmer, Thomas Henry, 1898  
 Patterson, Benjamin Gilmore, 1904  
 Peterson, Arthur James, 1903  
 Piddington, Francis Llewellyn, 1898  
 Poole, William, 1900  
 Rae, Thomas Robert, 1905  
 Reid, Norman, 1898  
 Reid, Robert Stewart, 1905

Richardson, Rosalyn James Dalyell, 1903  
 Robertson, James William, 1904  
 Saunders, George Joseph, 1904  
 Shellshear, Wilton, 1904  
 Simpson, Edward S., 1895  
 Skuthorpe, Garnett Stemyn, 1905  
 Slee, Richard Thilthorpe, 1901  
 Spier, Reginald Vincent, 1902  
 Stanley, Frederick Vernon, 1902  
 Stephen, James Farish, 1905  
 Stewart, Alexander Hay, 1902  
 Taylor, Thomas Griffith, 1905  
 Thomas, David, 1902  
 Try, John Cowley, 1902  
 Twynam, Henry, 1896  
 Verge, John, 1903  
 Walker, Hugh, 1903  
 Ward, Leonard Keith, 1903  
 Waterhouse, Gustavus Athol, 1900  
 Webb, Sydney Douglas, 1905  
 Weigall, Arthur Raymond, 1894  
 Weigall, Henry Stuart, 1903  
 Whitfeld, Hubert Edwin, 1902  
 Williams, Leslie Ballesat, 1902  
 Winton, Louis Joseph, 1901  
 Wilson, John Bowie, 1897  
 Wilson, Richard Cunliffe, 1903  
 Wood, Henry, 1903  
 Woodburn, Joseph William, 1903

*(Mechanical and Electrical.)*

Brooks, Harold Arthur, 1905  
 Myers, Harold Walter, 1903.

Weston, Percy Leonard, 1904  
 Woodcock, Lancelot Richard, 1905

## UNDERGRADUATES.

## FACULTY OF ARTS.

## FIRST YEAR.

Alexander, Hilda  
 Archdall, Henry Karow  
 Aspinall, Arthur Martel  
 Balcombe, Gordon Twrwhitt  
 Bates, Arthur William  
 Bennett, Tib Sidwell  
 Bland, Henry Stamper  
 Blaxland, Falkner  
 Blaxland, Marcus Herbert  
 Booth, Stanley  
 Bowman, Myril MacDougall  
 Bray, Gordon Wolsley  
 Brodziak, Birdie Kate  
 Browning, Robert Humphrey  
 Bundock, Harry Charles  
 Byrne, George Cumming  
 Carruthers, Ernest Spencer William  
 Castlehow, Stanley  
 Chapman, Benjamin Burgoyne  
 Cohen, Fanny  
 Cosgrove, Charles  
 Croft, Edith  
 \*Dallen, Evelyn Scott  
 \*Dallen, Margaret Sophia  
 \*Davis, Archibald Percy  
 Deffell, Alice Hibbert  
 Densley, Lucy Norma  
 Dent, Oswald Gordon  
 De Putron, Violet  
 Dickson, Nora Laing  
 Donkin, Edwin Gordon  
 Duesbury, Elsie May Pearl  
 Edward, Jessie Dewar  
 Edwards, Henry George  
 Fallon, Cyril Joseph  
 Ferguson, Ernest Adie  
 Finley, Cecil Aubert  
 Fitz, Blanche  
 Fitzpatrick, Mabel Darling  
 Flower, Emily Monica  
 Fry, Harold Willoughby  
 Fullerton, James Alexander  
 Gainford, Gerrish le Barron  
 Gale, John Thomas Whicker  
 Gourlay, Mary Elizabeth Florence

\*Grassick, Henry Robert  
 Hall, Austin Vine  
 Hammand, Charles Ackroyd  
 Harris, Reginald William Sydnor  
 Harrison, Bede James Michael  
 Henry, Clifford  
 Ives, Margaret  
 Jopling, Mildred Hilda  
 Kenny, Joseph Patrick  
 Kesteven, Hereward Leighton  
 Lane, George Thomas  
 Laurence, Raymond Lister  
 Lhoest, Elsie  
 Light, Hilda Vera  
 Lindeman, Grant Bramhall  
 Lion, Rosine  
 Lodder, Nelly  
 \*Macdonald, James Anderson  
 McElhone, Frank Eric  
 McElhone, George Hill  
 McGill, Alexander Douglass  
 McKibbin, Rachel  
 McLennan, Simon  
 Magney, John  
 Malcolm, Olive Matilda  
 Marks, Gladys Hope  
 Marsh, Alison Mary  
 Mitchell, Clarice  
 Morris, Emanuel Sidney  
 Newmarch, Roy Leathes  
 Norman, Keith Dixon  
 Pearce, Wilfred Henry Starkey  
 Perry, Irene Frances Boulton  
 Peterson, Vivian Woodward  
 Pitt, Clive Nelson  
 Pocock, Robert Bakon  
 Poggioli, Hercules Henry  
 Pratt, Annie Marion  
 Preston, Wilfred Herbert  
 Pridham, Alice Margaret  
 Robertson, Norman Keith  
 Roseby, Clara  
 Ross, Colin Chisholm  
 Rudder, Llewellyn Bisset  
 See, Henry Clarence Matthews

Sharp, Percival John  
 Shellshear, Guy Walter  
 Sherwin, Thomas Aylwin  
 Silvester, Vernon Henry  
 Simpson, Robert Ian  
 Sinclair, Edward Adams  
 Sinclair, George Wade  
 \*Sly, Shirley  
 Small, Ethel Mary  
 Snow, Stuart Bishop  
 Stack, Walter Jaques  
 Stafford, Albert Leslie  
 Stokes, Sydney  
 Talbot, Ailsie

Thomson, Ewing George  
 Tomkinson, William  
 Utz, Harold Stewart  
 Vance, Edmund Bruce Mortimer  
 Vickers, Leslie  
 Walker, John  
 Wall, William Thomas Stanislas  
 Watts, Ethel Lucy  
 Webb, James Eli  
 Whyte, Henry William  
 Wilkinson, Lancelot Victor  
 Woodlands, Mabel Rose  
 Wyndham, Elinor Margaret  
 Young, Herbert Russell

## SECOND YEAR.

Ash, Fortescue Leo  
 Badman, Gladys Eunice  
 Booth, Irene Mildred  
 Brierley, Nina Benson  
 Butler, Lilian  
 Bruce, James Whitson  
 Clayton, Hector Joseph Richard  
 Crane, Bertha Elizabeth  
 Clouston, Lavinia  
 Culpin, Daisy Ellen  
 David, Margaret Edgeworth  
 Davis, Isabel Ridley Havergal  
 Deane, Wallace  
 Dixon, Thomas Storie  
 Dunlop, Mabel Laura  
 Dunstan, Kathleen  
 Edwards, Dorothea  
 Ewing, Thomas  
 Fidler, Ethelwyn  
 Fowler, Enoch  
 French, Bernard Russell  
 Fry, Eva Jane  
 Garnock, Reginald Charles David  
 Gibson, Joseph Charles  
 Gordon, George Acheson  
 Greville, Minnie  
 Hamilton, John Simpson  
 Harker, Mabel  
 \*Holt, Constance Gwladys  
 Howard, Vera  
 Jackson, Elizabeth  
 Jones, Grace Eveline

Jones, John Russell  
 King, Clarence Adrian Zlotkowski  
 Lee, Norah St. George  
 Lydall, John French  
 Maclardy, Margaret McIntyre  
     St. Clair  
 McKeown, Frederick Maurice  
 Martin, Laura Margaret  
 Mathie, Malcolm  
 Mills, Archibald Joseph  
 Minter, Clifford  
 Morrison, Stanley Holloway  
 Nimmo, William Muir  
 Noad, Emma Alison  
 North, Frederick  
 Palmer, Allan Burnet  
 Paxton, Grace  
 Pearce, William Thomas Louis  
     Archdall  
 Ralston, Alexander Windeyer  
 Read, Thomas Walford Vero  
 Robinson, Katherine  
 Robinson, Mabel Hawthorne  
 Sands, William George  
 Schleicher, Bernard Michael John  
 Scroder, Aphra Frances  
 Sherwood, Edith Marian  
 Smithers, Margery Ada  
 Stanton-Cook, Millicent  
 Stewart William Pentleton  
 Teece, Ashley Howard  
 Tietkins, Emily Mary



Wallach, Henriette  
Ward, Bertha Raymond  
Watkins, Herbert Lance

Watson, Lindsay George Herbert  
Willis, Carlyle Gordon  
Young, Hilda May

## THIRD YEAR.

Austin, Fanny May, B.A.  
Bellhouse, Constance Annie  
Bourne, Florence Ida  
Christmas, Charles Herbert  
Clark, Marjorie Dufaur  
Coen, Francis  
Davies, Isobel  
Debenham, Frank  
Debenham, Jessie  
Fitzhardinge, Julie Grantley  
Futter, Victor Sedley  
Hall, Dorothy Vine  
Hall, Florence Sidney  
Hertzberg, Marcus  
Holden, Florence Mackenzie  
Hollingdale, Bernard Austin  
Hughes, John  
Jones, Eric David Lloyd  
Kaepfel, Andrée Adelaide  
Leeson, Ida Emily  
Lennox, Edith

Lusby, Sydney Gordon  
Lyons, Richard Jenkins  
MacCallum, Mungo Lorenz  
MacFarland, Laurie Moreton  
McIntosh, Alexander Menzies  
McKie, Ernest Norman  
McLean, Archie Lang  
Moylan, William Patrick  
Murray-Prior, Ruth Angela  
Noake, Stephen Charles  
Parsons, Florence Louey  
Portus, Garnet Vere  
Redgrave, Harold Wilfrid  
Rhodes, Alice Olivia Raybould  
Roughton, Gladys Muriel  
Smith, Nellie May  
Sparling, Lilian Grace  
Walker, Arthur Dight  
Watson, Maria Eleanor  
Webb, Bernard Linden  
Whitney, George Charles

## EVENING STUDENTS.

## FACULTY OF ARTS.

## FIRST YEAR.

Abrams, Reginald Orton  
Barlex, Harrie Norman Clayton  
\*Binns, Kenneth  
Brown, Walter Owen  
\*Burke, John James  
\*Burns, Alexander Liscoe  
\*Bussmann, Frederick  
Butler, William  
\*Campling, Carie  
\*Cane, Percy Frank  
\*Carne, Harry Benjamin  
Collins, Lillian  
\*Cox, Percival Benjamin  
Crane, Clive Charles  
Curry, John Nicholas  
Cusbert, Allan William  
\*Davis, A. P.

Dick, Lily Jane  
Douglass, Albert Horace  
\*Ewing, William Cunningham  
Forsyth, William  
Foster, William Paterson  
Garnsey, Herbert Thomas  
Geer, Lillian Ella  
Giltinan, Richard  
Gombert, France  
Grassick, Henry Robert  
\*Greaves, John William  
Grey, Temple Hamilton  
Grey, Egerton Edward  
\*Hagarty, L. J.  
Hall, William Morton Chilvers  
Hatfield, William Frederick James  
Hicks, Aleck Walter

Hilliard, William George  
 Hunt, William Edwin  
 Leaver, John  
 Leavers, Claude William  
 Lovell, Mildred  
 Lowe, Matthew Henry  
 Lusby, Charles Thomson  
 Lynch, Joseph  
 Macdonald, James Anderson  
 McIlwraith, William Daniel  
 McKean, Alexander  
 Mackney, Harold Knight  
 \*McMinn, Wilfred  
 \*Mahoney, William Augustus  
 \*Mann, John Wills  
 Miles, Benjamin James Vivian  
 \*Milligan, Hugh Archibald  
 \*Moir, William Colin  
 Monro, John Patterson  
 \*Montgomerie, William Henry

\*Morris, William Arthur  
 Olsen, John Murray Sydney  
 Otton, Dudley Keith  
 \*Parker, Edwin Henry William  
 Quirk, Francis Patrick  
 Ranson, Joseph Robert  
 Rochester, Harry Russell  
 \*Ryan, Joseph Clement  
 \*Scrivner, Leslie Lyle  
 Short, Frederick  
 \*Smith, Allan Malcolm  
 \*Smith, V. T.  
 \*Steel, Oswald Leslie Jennings  
 Stephen, John Newton  
 Swain, Edith Muriel Maitland  
 Taylor, Robert Challis  
 \*Thompson, William Alexander  
 \*Wilson, Edward George  
 Wooster, Frank Couper

## SECOND YEAR.

Berry, David Houston  
 Blume, George  
 Brown, James  
 Cantrell, Sidney William  
 Chandler, Harry  
 Cole, Arthur George  
 Cooper, Douglas Maxwell  
 Cowie, Herbert  
 Davies, Ernest Stanley  
 Gowing, Ellis Norman  
 Hallmann, Edward Francis  
 Harvey, Robert Frederick  
 Hunt, Aubrey Fitzmaurice  
 \*Jones, Emma  
 Laird, Henry Hermann

Leroy, Alfred Ernest  
 McDonald, William A.  
 McKean, Leslie John  
 Mackaness, George  
 Matthews, Alfred  
 Moore, Henry Edington  
 Philip, Frederick Charles  
 Reynolds, Alfred John  
 Rickard, Jonathan Charles  
 Smith, Charles Percy  
 Sproule, Robert  
 Tarrant, Thomas Ambrose  
 West, William Montague  
 Walker, John William

## THIRD YEAR.

Anderson, Robert  
 Bourke, Joseph Ormond Aloysius  
 \*Browne, Walter Percival  
 \*Brunton, James  
 †Campbell, Alexander Petrie, B.A.  
 Coleman, Ernest Albert  
 Collins, Clifford Malua  
 †Connor, Thomas John, B.A.  
 \*Cowan, William  
 †Cramp, Karl Reginald, B.A.

†Crisford, Hilda Nelsie, B.A.  
 †Davies, Edith Warlow, M.A.  
 †Eldridge, Ada, M.A.  
 \*England, F.  
 Fraser, George  
 †Fraser-Hill, Charlotte E., B.A.  
 Gale, Charles Albert  
 \*Gandon, P. J.  
 †Howard, John Bruton, B.A.  
 Kennedy, Philip, M.A.

\* Unmatriculated.

† Attending post-graduate course.

Lovell, Henry Tasman	*Ranson, E. S.
Loxton, Frederick Ewen	†Raves, Helen Alice, B.A.
MacInnes, Isabel M., B.A.	†Riley, Ernest Arthur, B.A.
*Maddocks, Aubrey Sydney	*Ross, John Anderson
Melville, Hector Pope, B.A.	Shortland, Percy
Middleton, Robert John	†Slack, Ida, M.A.
Murray-Prior, Robert Sterling, B.A.	Smith, Stanley Clifton
Mottershead, Arthur	*South, William George
Newton, Roland George	Terry, Frank
Noake, Arthur Raynor	Toose, Stanley Vere
†Oakes, Florence Isabelle Mantell, B.A.	Tremlett, Frank Cecil Glazebrook
*Overy, Grace	Walker, Clifton Claude Parton
Penman, Leslie Ethelbert	Watt, Thomas Evans
*Perdriau, Ralph Joseph	Williams, Robert Sydney
	Waring, Herbert Raymond

## FACULTY OF LAW.

## FIRST YEAR.

Baxter Bruce, Arthur	Thompson, Edmund Harvie
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## SECOND YEAR.

O'Grady, John Edward

## THIRD YEAR.

Clarke, James John Mackenzie	Hughes, John, B.A.
Coen, Francis	Makin, William, B.A.
Dibbs, Leonard Burton	Rogers, Percival Halse, B.A.
Futter, Victor Sedley	Spence, John, B.A.
Gahan, Burriss	Toose, Stanley Vere
Haigh, Victor, B.A.	Townsend, Samuel Edward, B.A.
Harris, Lewis Alexander, B.A.	Waring, Herbert Raymond
Hertzberg, Marcus	Watt, Thomas Evans
Hollingdale, Bernard Austin	

## FOURTH YEAR.

Barrow, Isaac Manly, B.A.	Merrick, John
Beckenham, John George, B.A.	Murray-Prior, Robert Sterling, B.A.
Bonney, Reginald Schofield, B.A.	O'Reilly, Walter Cresswell, B.A.
Compton, Albert Zarenne, B.A.	Quinn, John Joseph, B.A.
Ebsworth, Samuel Wilfred, B.A.	Real, Edward Thynne, B.A.
Grove, Frederick Thomas	Watts, Percy Richard, B.A.
Henry, Hugh, B.A.	Wheeler, Arthur Russell, B.A.
Jordan, Frederick Richard, B.A.	Williams, Keith
Manning, Hugh Eldred, B.A.	

## FIFTH YEAR.

Artlett, William Langridge, B.A.	Deane, Claude S
Breckenridge, Charles C. P.	Denham, Howard Kynaston, B.A.
Brown, George Edward, B.A.	Fisher, Arthur Donnelly, B.A.

\* Unmatriculated. † Not passing through the regular course.

Halloran, George Henry, B.A.  
 Jaques, Harold Vivian, B.A.  
 Larkins, Frank Joseph Moore, B.A.  
 McWilliam, Neville Gilbert, B.A.

Murray, Charles O'Connor, B.A.  
 Rowland, Norman de Horne, B.A.  
 Teece, Roy Noel, M.A.  
 Wilson, David, M.A.

## FACULTY OF MEDICINE.

## FIRST YEAR.

Abernethy, Cecil William  
 Arnold, Aldous Campbell  
 Ascher, Clive Lovell Gottschalk  
 Barron, Thomas Patrick  
 Barton, Alan Darvall  
 Beatty, Harold Ramsay  
 Berge, Carl Gustavus  
 Blumer, George Albert  
 Boylan, John  
 Brierley, Frank Sheppard  
 Brooks, William Seymour  
 Burfitt, Manie Boyd  
 Curtin, Austin Sydney  
 Dey, Lindsay Alexander  
 Ducker, Norman Graham  
 Dunlop, Leslie William  
 English, Robert Joseph  
 Fitzhardinge, John Fortescue  
 Grantley  
 Fowler, Cosmo William  
 Fowler, Enoch  
 Freeman, Margherita Mahy  
 Gaden, Keith Burton  
 Goddard, Thomas Herbert  
 Hamilton-Browne, Elizabeth Isobel  
 Handcock, Charles Lancelot Morrice  
 Haynes, Arthur Richard  
 Larkins, Frank Joseph Moore, B.A.  
 Lentaigne, John  
 Luddy, John Joseph  
 Macintosh, Cyril Leslie Stewart  
 Macintosh, George Donald  
 Maclean, Lillian Alexia  
 Makinson, Gilbert Philip  
 Marsh, Harold Theodore  
 Martin, Robert

Matthews, Walter Frederick  
 Mellor, Ernest James  
 Middleton, James  
 Mobbs, Athol Walter  
 Molesworth, Cecil Stanley  
 Nathan, Gilbert Grace  
 Norrie, George  
 Norrie, James  
 Oatley, Frederick Dudley Weedon  
 Parker, Leslie Richard  
 Parkinson, Henry Hallam  
 Parnell, Ethel Caroline  
 Paul, Charles Norman  
 Petherbridge, Walter Charles  
 Pittman, Ernest Ellis  
 Poulton, Reginald Lancelot  
 Purves, Allan Melrose  
 Rich, Vivian Morris  
 Robertson, May Douglas  
 Robertson, William Eric Kossuth  
 Roger, Robert  
 Rorke, Frederick Charles  
 Rorke, Sydney Norman  
 Schenk, Theodor George William  
 Henry  
 Schmidt, Egmont Theodor Karl  
 Smith, Clara Rebecca  
 Smith, Clive Nigel  
 Smyth, John Sands  
 Storey, John Colvin  
 Tait, Gordon  
 Thompson, William Barber  
 Tooth, Frederick  
 Waddell, Harry James  
 Waldron, George Dibbs King  
 Whiting, Keith Moore

## SECOND YEAR.

Allen, Hugh George  
 Barron, George Moncrieff  
 Beazley, Raymond  
 Beeston, William Read

Body, Eliel Edmund Irving  
 Bullock, Howard  
 Candlish, Robert Smith, B.A.  
 Carroll, William John Smyth, B.A.

Child, Sophia Ruth  
 Coen, Bernard  
 Croll, Gifford  
 Crothers, Charles Alexander  
 Docker, Ernest Noel Brougham  
 Ellard, William Christian  
 Fahy, James Francis  
 Ferguson, Eustace William  
 Fraser, Donald, M.A.  
 Golledge, Kenneth Alfred  
 Grigor, William Ernest  
 Groundwater, John Leslie  
 Hill, Douglas Bayly  
 Hoeta, John William van Rees  
 Hughes, James  
 Johnston, Herbert Huff  
 Lyons, Ettie, B.A.  
 Mackenzie, Donald Stuart  
 McKillop, Lachlan Martin  
 McPhee, Vincent Joseph

Parry, Lloyd Davenport  
 †Perston, Arthur Robertson  
 Patterson, Mervyn Stuart  
 Powell, James William Garnett,  
     B.A.  
 Rogers, Leslie Halse  
 Sampson, George Atkin  
 Sinclair, Archibald Fletcher  
 Smith, Gerald Keith  
 Smith, Hilton Charles Garnet  
 Smith, Kenneth  
 Stafford, Herbert Leslie  
 Stewart, Colin Percival  
 Talbot, Ethel  
 Tebbutt, Arthur Hamilton, B.A.  
 Veech, Michael Stanislaus  
 Verge, Cuthbert Arnold  
 Waddy, Richard Granville  
 Woodburn, James John

## THIRD YEAR.

Adams, Edith Mary  
 Archdall, Mervyn  
 Baret, Henri Victor David, B.A.  
 Bottrell, Elwin Horace  
 Brearley, Edwin Andrew, B.A.  
 Brookes, George Arthur  
 Brown, Elsie Forrest  
 Collier, Frederick William Dean  
 Colvin, Arthur Edmund  
 Cotton, George Reginald Cope  
 Dickinson, Evelyn Elizabeth  
 Dunn, Archibald Jamieson  
 Fitzpatrick, Bernard Joseph, B.A.  
 Flecker, Hugo  
 Fox, Arthur Wesley  
 Furber, Rupert  
 Geddes, Cecil Burtoft  
 Giblin, William Eric  
 Harris, Henry  
 Heydon, George Aloysius Makinson  
 Heaslop, James William

Larkins, Nicholas Clement  
 MacFarlane, John Stuart  
 Martin, Harold Joseph  
 Matthews, Henry Delahunt  
 Murray-Prior, Mabel  
 Nathan, Venour Vigne  
 O'Halloran, Charles Michael  
 Oxenham, Humphrey Bede  
 Prevost, Richard Lewis de Teissier  
 Ramsden, Edward Maxwell  
 Ritchie, Harold John  
 Roger, John Morrice  
 Rogers, Francis Cecil  
 Rutherford, Constance Muriel, B.A.  
 Stephens, Frederick Glover Neason  
 Thompson, Clive Wentworth  
 Tomlinson, George Leigh  
 Verge, John, B.A.  
 Weedon, Cyril James  
 Welch, Kenyon St. Vincent

## FOURTH YEAR.

Binns, William Johnstone, M.A.  
 Bradley, Clement Henry Burton  
 Campbell, John Stuart, B.A.  
 Chapman, Herbert Owen  
 Conolly, Henry Willans

Cook, Sydney Leicester, B.A.  
 Craig, Francis  
 Deakin, John Edward Ferdinand  
 Diethelm, Oscar Albert Anton  
 Edwards, James George

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† Not passing through the regular course.

Elwell, Lawrence Bedford  
 Gilchrist, James Joseph  
 Hutchinson, Eric Lloyd  
 McClelland, Reginald Eustace  
 MacInnes, Angus, B.A.  
 Mackenzie, Arthur Joseph  
 Maher, Charles Weston  
 Moran, Herbert Michael  
 Ormiston, Isabel Martha  
 Paul, George Augustus  
 Poate, Hugh Raymond Guy  
 Pridham, Harold Ernest

Renwick, Charles Saunders  
 Rutledge, Edward Hamilton  
 Schlink, Herbert Henry  
 Shellshear, Joseph Lexton  
 Stacy, Valentine Osborne  
 Steele, Andrew Buchanan  
 Stokes, Frank Oliver  
 Vickers, Wilfred  
 Walker-Smith, Hugh Bell  
 White, Wilfrid James  
 Withers, Oswald Edgar Bruce

## FIFTH YEAR.

Aspinall, Archibald John  
 Aspinall, Jessie Strahorn  
 Binney, Constance Clarice  
 Bell, George  
 Bridge, Norbert Henry  
 Buchanan, Joseph David  
 Cahill, Arthur Charles  
 Clifford James Percy  
 Clouston, Thomas Bennett  
 Cowlshaw, Leslie  
 Culpin, Ernest  
 Day, Edward James  
 Donovan, Harrie Caresfort Edmond  
 Doyle, William Oscar  
 Finselbach, Friedrich William  
 August  
 Gibson, Duncan David  
 Gillespie, Arthur Paul  
 Graham, David Hannam  
 Griffiths, John Neville  
 Hammand, Kendall  
 Hansard, Norman William  
 Harper, Margaret Hilda  
 Harris, John Solomon  
 Harris, Samuel Henry  
 Harrison, Edgar Selwyn  
 Higgins, Thomas Edward Charles  
 Hill, John Goodwin Watson, B.A.  
 Huggart, William Charles

Johnston, Langloh Parker  
 Jones, Lincoln  
 Kendall, Herbert William  
 Lightoller, George Henry Standish  
 MacCulloch, Harrington Thomas  
 Cuthbert  
 McKillop, Archibald  
 Mansfield, Walter Charles  
 Miller, Robert Christy  
 Molesworth, Edmund Harold  
 Moseley, Arthur Henry  
 O'Reilly, Theophilus Linnell  
 Palmer, Charles Reginald  
 Palmer, Henry Wilfred  
 Parker, Reginald Arthur  
 Parkinson, Thomas Carlyle  
 Pritchard, Alice, B.A.  
 Quaife, Cyril  
 Quaife, Walter Thorold  
 Riley, Spencer Birkenhead, B.A.  
 Sapsford, Clinton Pelham  
 Sheehy, William  
 Stiles, Bernard Tarlton  
 Thomson, Jean Graeme  
 Welch, John Basil St. Vincent  
 Wherrett, Ernest Albert  
 Willis, Charles St. Leger  
 Wylie, Mary Wilhelmina

## DENTISTRY.

## FIRST YEAR.

Anderson, Edward Sinclair  
 Atwill, Milton Spencer  
 Byers, William Ernest  
 Callaghan, Auriol Albert

Cosgrove, John Irving  
 Hardwick, Frederick  
 Jones, Richard John Edward Victor  
 Munro, Donald Roma

Murphy, Claude Vincent  
Richards, Samuel Alexander  
Ruse, Byron Brace

Taylor, William Jason  
Watson, Edward Oliver

## SECOND YEAR.

Gattenhof, William Vincent  
Grant, William, M.B.  
Hicks, Harold Frank

Lane, Alan Philip Reade  
Moore, Eric Julian

## THIRD YEAR.

Broughton, Francis William  
Walford  
Burne, Alfred Dangar  
Capper, Lisle Hyne  
Cozens, George Charles  
Deck, Norman Cathcart  
Grosse, Edward Henry

Kirchner, Edward Ravane  
Love, William Arnold  
Marshall, William Henry  
Pridham, Edward  
Punch, James  
Riley, Edwin Blomfield Gerard  
Starkey, William Augustus

## PHARMACY.

Acheson, Alfred Thomas  
Arnott, David Millie  
Ball, Walter  
Ballhausen, Louis William  
Beard, Harry Bruce  
Bowes, John Godfred Francis  
Boyne, Archie MacIntosh  
Campbell, Angus McLeod  
Campbell, George  
Carroll, Arthur Sydney  
Cunninghame, Robert Dryborough  
Davis, Stanley Joseph  
Dick, Thomas Hislop  
Dodd, William Percy  
Ellis, James Eccles  
Emert, Frederick William  
Farley, Samuel James  
Ferguson, Stanley Nigel  
Foster, John Uriah  
Foster, Philippe George Hamilton  
George, Stanley James  
Greentree, Athol Garnet  
Hewlett, Leslie Edwin  
Hislop, G. R.  
Holloway, Edward Spencer  
Lloyd, Augustus Picton  
McBride, Hugh Robert

Maher, Ernest  
Martin, Richard Albert Spencer  
Mitchell, Francis Montague  
Mitchell, William Alfred  
Newth, Adrian Hastings  
Oxenham, Norman  
Pope, Rex Howard  
Porter, Alexander  
Probert, Cyril Kingston  
Renwick, Howard Russell  
Ricketts, William  
Riddell, Eric Eglinton  
Ritchie, Oliver James  
Rowe, Claude Coleman  
Self, Ernest  
Short, Archibald Gordon  
Sinclair, Frederick James  
Siviter, Henry  
Sone, Charles  
Stewart, Thomas Ralph  
Townley, Leslie John  
Walker, Joseph Benedict  
Wallace, Frederick Finlay  
Watt, G. Wilfred  
West, Frank Victor  
Williams, Leslie Bridgewater  
Woolford, Arthur Beeby

## UNDERGRADUATES.

## FACULTY OF SCIENCE.

## FIRST YEAR.

Bateman, John Edwin  
Breakwell, Ernest  
Cotton, Leo Arthur  
Deer, Margaret  
Edwards, Rowland Campbell  
Farran-Ridge, Clive  
George, Sydney

Hislop, George Randolph  
Priestley, Henry  
Sharp, Lewis Hey  
Sherring, Beatrice Alice Sophie  
Taylor, Dorothy Rhodes  
Webb, Sydney Douglas, B.E.

## SECOND YEAR.

Armstrong, Harriet Ethel Mary  
Benson, William Noel  
Blume, Bertha Elizabeth  
Dalyell, Elsie Jean  
Flynn, Theodore Thomson  
Free, Mary Grace  
Hammond, Walter Leslie  
Johnston, Thomas Harvey, B.A.

Mackinnon, Ewen  
Meldrum, Henry John  
Paul, Alfred  
†Roberts, Reginald Fairfax  
Sharp, Lewis Hey  
Webb, Sydney Douglas, B.E.  
White, Charles Josiah

## THIRD YEAR.

Atkinson, John  
Carroll, William John Smyth, B.A.  
†Challinor, Richard Westman  
Dwyer, Thomas Cahill  
Ewing, Thomas

Goddard, Ernest James, B.A.  
Hallman, Edward Frances  
Priestley, Henry  
Sharp, Lewis Hey  
\*Walton, Sidney Gilbert

## RESEARCH SCHOLAR.

(a) Jensen, Harold Ingemann, B.Sc.

## ENGINEERING.

## FIRST YEAR.

Ada, William Leslie  
Bedford, Max Ehrensvar  
Carleton, George Brabazon  
Carter, Edward Moore  
Clift, Guy Chalmers  
Coward, William Beresford  
Cowdery, George Eric  
Davidson, George Frederick  
Frew, Alison Davis Harding  
Howatson, George  
Lane, John Bayley  
McBryde, James  
McLennan, William Munro

MacPhillamy, Mowbray Charles  
Miller, Horace Richard  
Morris, Albert Colin  
Mort, John Laidley  
Ranclaud, Archibald Boswoen  
Boyd  
Royle, John McDiarmid  
Sewell, Leonard Greville  
Stewart, Gordon Cox  
Wardrop, Robert Davidson  
Waterhouse, Leslie Vickery  
Waterhouse, Lionel Lawry

† Not passing through the regular course.

(a) Macleay Research Fellow.

\* Unmatriculated.



## SECOND YEAR.

*Civil Engineering.*

von Arnheim, Sigmund Frederick	†Searl, Harry Foster
Dennis, Spenser	Simpson, Morris Hay
Donkin, William Dalkeith	†Thornbury, Edward Stanley
Morrison, Archibald	

*Mining and Metallurgy.*

Barker, Nigel Chase	Niall, Kenneth Mansfield
Cater, Owen Tom	Roe, Charles William
Mulligan, Edric Noel	Walker, John Stewart Dight
Johnson, Norman Russell	Waugh, Keith Cameron
*McIntyre, William Keveral	White, Harold Fletcher

*Mechanical and Electrical.*

Bundock, Arthur William	Langley, Frederic Baker
Burnell, John Gurner	Mathews, William Washington
Carter, Herbert Gordon	May, Hubert Walter
Edgley, Harold Day	Power, Reginald
Forrest, William Tyler	Roberts, Harold Ashfield
Hudson, John Macanish	†Swain, Herbert: John
Ireland, Oscar Arthur	Thompson, Harold Lindsay

## THIRD YEAR.

*Mining and Metallurgy.*

Bridge, John Morrice	McMaster, Colin Forbes
Coldham, John Cockburn	Penman, Arthur Percy
†Cribb, Herbert Bridson	Skerritt, Alfred William
Cropper, Cecil Howe	Waine, Victor Joseph
Foxall, Henry George	Whiteman, Woodleigh Dowling

*Mechanical and Electrical.*

Clayton, Frank Herbert	Prescott, William Arnold
Flashman, Horace West	†Price, A. G.
Jones, Stephen William	†Price, Aubrey Leigh
Larkins, Harold Matthew	Tivey, John Proctor, B.A.
Norman, John Lupton	

## FOURTH YEAR.

*Mechanical and Electrical Engineering.*

Bellemey, Sidney James	Mason, William Henry
Cowlishaw, Roy Gratton	Mort, Harold Sutcliffe, B.Sc.
Marriott, Edward West	

† Not passing through the regular course.

\* Unmatriculated.

## AFFILIATED COLLEGES.

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By the Act 18 Victoria, No. 87, superseded by Act 64 Victoria, No. 22, provision is made for the Foundation of COLLEGES within the University in connection with the various religious denominations, in which students of the University may enjoy the advantages of residence, instruction in the doctrine and discipline of their respective Churches, and tuition supplementary to the lectures of the University Professors.

No student can be admitted to any such College unless he immediately matriculates in the University, submits to its discipline, and attends the statutory lectures; nor can he continue a member of the College longer than his name remains upon the University books.

### ST. PAUL'S COLLEGE.

Incorporated by an Act 18 Victoria, in connection with the Church of England. In the terms of the Act the Visitor is the Archbishop of Sydney. The Corporation consists of a Warden, who must be in Priests' Orders, and eighteen Fellows, six of whom must be in Priests' Orders, and the remainder must be laymen. The Fellows, with the Warden, form the Council in which the Government of the College is vested.

#### VISITOR.

THE LORD ARCHBISHOP OF SYDNEY.

#### WARDEN.

The Rev. Canon William Hey Sharp, M.A., TH. Soc.

#### SUB-WARDEN.

N. de Horne Rowland, B.A.

#### LECTURERS.

Classics and Philosophy—N. de Horne Rowland, B.A.

Mathematics—B. R. Barry, B.A.

French—W. H. W. Nicholls, B.A.

#### BURSAR.

F. B. Wilkinson, M.A.

## FELLOWS.

Ashton, J., M.L.A.	Peden, J. B., B.A., LL.B.
Backhouse, His Hon. Judge, M.A.	Plume, Rev. H., M.A.
Carr Smith, Rev. W. I.	Russell, F. A. A., M.A.
Champion, Rev. A. H., M.A.	Stanton, Right Rev. G. H., D.D., Bishop of Newcastle.
Chisholm, W., M.D.	Taylor-Young, H. C., M.D.
Corlette, U. E., M.D.	Uther, A. H., B.A., LL.B.
Flower, Rev. W., M.A.	Weigall, A. B., M.A.
Günther, Ven. Archdeacon, M.A.	Wilkinson, F. B., M.A., Bursar
Hodges, C. H., M.A.	
Norton, Hon. J., M.L.C., LL.D.	

## GRADUATES.

*(Continuing on the Books.)*

## M.A.

Stephen, C. B.	Powell, T.	Russell, F. A. A.
Faithfull, W. P.	Dawson, A. F.	Millard, G. W.
Purves, J. M.	Taylor, Rev. H. W.	Perkins, Rev. F. T.
Faithfull, H. M.	Campbell, Ven. J.	Abbott, Ven. T. K.
Pring, R. D.	Hills, H.	Chambers, Rev. G. A.

## B.A.

Sharpe, E.	McIntosh, H.	Maxwell, H. F.
Blacket, A. R.	Roseby, T. E.	Barton, J. A' B. D.
Noake, Rev. R.	Blacket, Rev. C.	Hobbs, E.
Bundock, F. F.	Uther, A. H.	Blaxland, H. C.
Buckland, T.	Stephen, E. M.	Houison, Rev. S. J.
Elder, Rev. F. R.	Doak, F. W.	Gregson, W. H.
Bundock, C. W.	Windeyer, R.	Pilcher, N. G. S.
Feez, A.	Russell, C. T.	Evans-Jones, D. P.
Tange, C.	Peden, J. B.	Brown, Rev. G. E.
Morrish, Rev. F.	Helsham, C. H.	Verge, J.
Piddington, A. B.	Tighe, W.	Stephen, H. M.
Baylis, H. M.	Williams, J. L.	Mutton, I.
Street, P. W.	Abbott, H. P.	Rutherford, G. W.
Merewether, E. A. M.	Dove, W. N.	Harris, R. A.
Clarke, Rev. F. W.	Dowe, Rev. P. W.	Gregson, E. J.
Millard, A. C.	Thomas, Rev. R. W.	Slade, O. C.
Jenkins, Rev. C. J.	Waldron, T. W. K.	Cranswick, G. H.
Woodd, Rev. H. A.	Merewether, H. H. M.	Docker, W. B.
Bode, Very Rev. A. G. H.	Cakebread, Rev. W. J.	Barry, D. R.
Britten, H. E.	Rowland, N. de H.	Manning, H. E.
Newton, Rev. H.	Merewether, W. D. M.	Waddy, E. F.
D'Arcy-Irvine, M. M.	Holt, A. C.	

## LL.B.

Uther, A. H.	Merewether, H. H. M.	Rutherford, G. W.
Waldron, T. W. K.	Merewether, W. D. M.	Evans-Jones, D. P.
Tighe, W.	Pilcher, N. G. S.	Slade, O. C.
Peden, J. B.		

## COLLEGES.

## . M.D.

Chisholm, W.

## M.B. AND CH.M.

Armstrong, W. G.  
Bancroft, P.  
Hunt, C. L. W.  
Millard, R. J.  
Kater, N. W.

Ludowici, E.  
Barton, J. A' B. D.  
Stuckey, F. S.  
Marsh, H. S.

Sharp, G. G.  
Lethbridge, H. O.  
Simpson, F. G. McN.  
Verge, A.

## B.E.

Merewether, E. A. M.  
White, N. F.

McCrae, A. G.

Verge, J.

## B.Sc.

Crane, J. T.

Stuckey, F. S.

Sharp, G. G.

## STUDENTS.

Archdall, H. R.  
Ash, F. L.  
Barton, A. S. D.  
Browning, R. H.  
Bundock, H. C.  
Dunlop, L. W.  
Forrest, W. T.  
French, B. R.  
Futter, V. S.  
Garnock, R. C. D.

Hudson, J. M.  
Ireland, O. A.  
Jones, R. J. E. V.  
Nathan, V. V.  
Nathan, G. G.  
Niall, K. M.  
Norman, K. D.  
Oatley, D. F. W.  
Portus, G. V.  
Read, T. W. V.

Ritchie, H. J.  
Rutledge, E. H.  
Sharp, L. H.  
Sharp, P. J.  
Simpson, M. H.  
Stokes, F. O.  
Tooth, F.  
Verge, C. A.  
Waddy, R. G.

## ENDOWMENTS AND PRIZES.

## A.—OPEN SCHOLARSHIPS.

(1) **THE KEMP**.—Principal, £400. Founded by the late Mrs. C. Kemp in memory of her husband, the Rev. C. Kemp.

(2) **THE EDWARD ASPINAIL**.—Principal, £500.

(3) **THE CANON STEPHEN**.—Principal, £761. Founded by subscription in memory of the late Rev. Canon Alfred H. Stephen.

The Kemp, Edward Aspinall and Canon Stephen Scholarships are awarded respectively to a student commencing the first, second or third year after his matriculation in the University. To be eligible for one of the above Scholarships the candidate must have taken at least second class honours at matriculation, or at the end of his first or second year after matriculation, as the case may be. If a student in one of the other Faculties, and of the requisite standing from matriculation, shall have taken

honours or distinctions which in the opinion of the Council are higher than those of any corresponding candidate in the Faculty of Arts, the Scholarship will be awarded to him. In case of equality a candidate in the Faculty of Arts will have preference.

**B.—THE BURTON EXHIBITION.**

This Exhibition is awarded to a student proceeding from the King's School to St. Paul's College. It is tenable for three years, the value not exceeding £40 per annum. The holder is required to produce at the end of each term a certificate of residence in College, and of good conduct, signed by the Warden.

**C.—FOUNDATIONS FOR RESIDENT STUDENTS WHO INTEND TO TAKE HOLY ORDERS.**

- (1) **THE AUGUSTA PRIDDLE MEMORIAL.**—Principal, £600.  
Founded by the late Rev. O. F. D. Priddle. Tenable for three years by the son of a clergyman licensed in New South Wales.
- (2) **THE STARLING.**—Principal, £1100.
- (3) **THE HENRY WILLIAM ABBOTT.**—Principal, £1000.  
Founded by the late T. K. Abbott, Esq.

**D.—THE MITCHELL PRIZE.**

This Prize was founded by the late Hon. James Mitchell, and is awarded to the Bachelor of Arts of the College who shall, within twelve months after taking that Degree, pass the best examination (of sufficient merit) in the Doctrines and History of the Church of England.

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A PROSPECTUS giving further information may be obtained on application to the Warden.

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**ST. JOHN'S COLLEGE.**

Incorporated by Act 21 Victoria, in connection with the Roman Catholic Church. In the terms of the Act, the Visitor is the Roman Catholic Archbishop of Sydney. The Corporation consists of a Rector (who must be a duly approved Priest), and eighteen Fellows, of whom six must be duly approved Priests, and twelve Laymen. These eighteen Fellows, with the Rector, form the Council, in which the government of the College is vested.

## COLLEGES.

## VISITOR.

THE ROMAN CATHOLIC ARCHBISHOP OF SYDNEY.

1894—His Eminence Cardinal Moran.

## THE PRESENT SOCIETY.

## RECTOR.

The Right Rev. Monsignor O'Brien.

## FELLOWS.

Butler, F. J., B.A.  
 Coffey, F. L. V., B.A., LL.B.  
 Fitzgerald, Rev. T. A., O.F.M.  
 Flannery, G., B.A., LL.B.  
 Flynn, J. E., M.A.  
 Freehill, F. B., M.A.  
 Gallagher, Right Rev. J.  
 Ginisty, Rev. A.  
 Heydon, Judge

Maher, W. Odillo, M.D.  
 Manning, Sir W. P.  
 McEvilly, U., B.A.  
 Mort, Laidley  
 Moynagh, Rev. J.  
 Mullins, J. L., M.A.  
 Sheehy, The Very Rev. Dr., V.G.  
 Slattery, Very Rev. P. A.  
 Slattery, T., M.L.C., K.C.S.G.

## M.D.

Maher, W. Odillo.

## M.B., CH.M.

Blaney, H. P.  
 Coen, J.  
 Connolly, T. P.  
 Crawley, A. J. C.

Elworthy, W. H.  
 Fitzpatrick, E. B.  
 Godsall, R.

McKelvey, J. L.  
 Newell, B. A.  
 Veech, M.

## M.B.

Durack, W. J.

Lister, H.

Marsden, E. A.

## B.Sc.

Leverrier, F.

## MINING—B.E.

Garry, J. J. P.

## LL.D.

Coghlan, C. A.

## LL.B.

Coffey, F. L. V.  
 Fahey, B. F.  
 Edmunds, W.

Lehane, T. J.  
 O'Donohue, J. P. M.  
 Tole, J. A.

Veech, L.  
 Watt, A. R. J.

## M.A.

Brennan, F. P.  
 Coghlan, C. A.  
 Clune, M. J.  
 Dalton, G. T.

Flynn, J. E.  
 Flynn, J. A.  
 Freehill, F. B.  
 Healy, P. J.  
 Mullins, J. L.

O'Connor, Richard E.  
 O'Mara, M.  
 Quirk, Rev. D. P.  
 Walsh, W. M. J.

## B.A.

Browne, W. C.	Kelly, T.	Meillon, J.
Butler, T.	Kenna, P. J.	Moloney, T. P.
Butler, F. J.	Leverrier, F.	Morris, J. M.
Carroll, W. J.	Leahy, J. P.	O'Brien, P. D.
Callachor, Rev. H. B.	Lehane, T. J.	O'Donohue, J. P. M.
Casey, M.	Lynch, W.	O'Keefe, J. A.
Connellan, J.	Lloyd, T.	Phillips, R. B.
Corbett, W.	Macnamara, P. B.	Power, P. H.
Coffey, F. L. V.	Macrossan, H. D.	Real, E. T.
Cullinane, J. A.	McNevin, T.	Sheridan, F. B.
Daley, F. H.	Maher, M. E.	Shorthill, J. R.
Douglass, R. J.	Maher, C. H.	Sullivan, H.
Durack, J. J. E.	Mayne, J.	Sullivan, J. J.
Enright, W. J.	Mayne, W. M.	Swanson, E. C.
Fahey, B. F.	McDonagh, J.	Tole, J. A.
Flynn, W. F.	McEvelly, A.	Veech, L. S.
Fitzpatrick, T. J. A.	McEvelly, U.	Watt, A. R. J.
Gorman, J. R.	McGuinn, D.	Walsh, J. J.
Higgins, M. A.	Meagher, L. F.	

## UNDERGRADUATES.

Barron, T. P.	Garry, J. J. P.	O'Halloran, C. M.
Carroll, W. J. S.	Haynes, J.	Power, R.
Coen, F.	Kemp, J.	Real, E. T.
Coen, B.	Luddy, J.	Schlink, H. H.
Douglass, R. J.	Maher, C.	Veech, M. S.
Fahey, B. F., B.A.	McKelvey, J. L.	

## LECTURERS.

SACRED SCRIPTURE ..	..	..	The Rev. the Rector
LOGIC AND GEOLOGY ..	..	..	Rev. L. Murphy, S. J.
CLASSICS ..	..	..	J. Carlos, B.A.
MATHEMATICS ..	..	..	H. de B. O'Reilly, B.A.

## ENDOWMENTS AND PRIZES.

The O'Connell Scholarship (value £40).—Open for competition to resident students who have newly matriculated in 1879 and the years following. (Subscribers—Sir P. A. Jennings, K.C.M.G., and others.) The origin of this Scholarship was the O'Connell Centenary Celebration.

1905—Barron, T. P.

The Dunne Scholarship (value £40).—Donor, the late Very Rev. P. Dunne, D.D., of Hobart.

1905—Kenny, J.

Rector's Scholarship.

Luddy, J.

## ST. ANDREW'S COLLEGE.

Incorporated by Act of Parliament, 81 Victoria, in connection with the Presbyterian Church of New South Wales. The Moderator for the time being of the General Assembly of the Presbyterian Church is Visitor. The Corporation consists of a Principal, who must be a duly ordained Presbyterian Minister, holding and prepared to subscribe (when called upon to do so) the standards of the Presbyterian Church of New South Wales, and twelve Councillors, of whom four, but not more, must be ordained Ministers of the same Church. These twelve Councillors, with the Principal, form the Council, in which the government of the College is vested.

## VISITOR.

THE MODERATOR OF THE GENERAL ASSEMBLY.

The Right Rev. Alexander McKinlay.

## PRINCIPAL.

The Rev. Andrew Harper, M.A. (Melb.), D.D. (Edin.)

## HUNTER-BAILLIE PROFESSORS.

ENGLISH LANGUAGE AND LITERATURE (IN RELATION TO RELIGION)—J. Kinross, B.A., D.D.

ORIENTAL AND POLYNESIAN LANGUAGES—Andrew Harper, M.A., D.D.

## MATHEMATICAL LECTURER.

Wyndham J. E. Davies, B.A., LL.B.

## SCIENCE LECTURER.

S. J. Johnston, B.A., B.Sc.

## LECTURER IN MEDICINE.

H. S. Stacy, M.D., Ch.M.

## HON. TREASURER.

Senator J. T. Walker.

## CLASSICAL LECTURER.

G. W. Waddell, M.A., LL.D.

## LECTURER IN PHILOSOPHY.

G. G. Nicholson, B.A. (Syd.), B.C.L. (Oxon.)

## SECRETARY.

William Wood.

## COUNCILLORS.

Bowman, Arthur, B.A.

Bowman, E., M.A., LL.B.

Bruce, Rev. D., D.D.

Cameron, Rev. James, M.A., D.D.

Campbell, John

Clouston, Rev. T. E., B.A., D.D.

Ferguson, Rev. John

Fuller, Hon. G. W., M.A., M.H.R.

Garland, John, M.A., LL.B.

Goodlot, John Hay

Hay, John, LL.D.

Walker, J. T., Senator

## TRUSTEES.

Anderson, H. C. L., M.A.

MacLaurin, Hon. Sir Normand,  
M.D., LL.D.

Bowman, Arthur, B.A.

Thomson, The Hon. Dugald, M.P.

Walker, J. T., Senator



## M.A.

Anderson, H. C. L.  
Cohen, J. J.  
Cribb, J. G.  
Flint, C. A.  
Fuller, G. W.  
Gill, A. C.  
Hill, Rev. Thomas  
Jackson, Rev. R.

Kay, Rev. Robert  
Mann, W. J. G.  
Marrack, J. R. M.  
Merrington, E. N.  
Moore, S.  
Nolan, J. H. M.  
Perkins, A. E.  
Ralston, A. G.

Rygate, P. W.  
Smairl, J. H.  
Steel, Rev. Robert  
Teece, R. Clive  
Teece, R. N.  
Thompson, J. A.  
Waddell, G. W.  
Waugh, Rev. Robert

## M.B. AND CH.M.

Blue, A. J.  
Bond, L. W.  
Browne, C. S.  
Cameron, D. A.  
Davidson, Leslie G.  
Davies, R. L.  
Dick, Robert  
Freslney, Reginald

Griffiths, F. G.  
Henderson, J.  
Jones, P. Sydney  
King, A. A.  
Kinross, R. M.  
MacDowall, V.  
Phillips, A. B.  
Perkins, A. E.

Purser, C.  
Roberts, A. S. C.  
Savage, Vincent W.  
Sheppard, A. M.  
Stokes, Edward S.  
Thomson, J. M.  
Townley, Percy L.  
Whiteman, R. J. N.

## LL.D.

G. W. Waddell, M.A.

## LL.B.

Edwards, D. S.  
Gill, A. C.  
Parker, W. A.

Teece, R. N.  
Teece, R. C.

Tozer, S. D.  
Walker, J. E.

## B.A.

Anderson, Rev. W. A. S.  
Auld, Rev. J. H. G.  
Barnet, Rev. Donald  
Barton, W. A.  
Beegling, D. H.  
Bowman, Alister S.  
Bowman, Arthur  
Bowman, Ernest  
Campbell, C. R.  
Cameron, Rev. A. P.  
Copland, F. F.  
Cosh, Rev. J., B.D.  
Craig, A. D.  
Crane, Rev. C.  
Crawford, Rev. T. S.  
Dettmann, H. S.  
Dick, J. A.  
Dick, W. T.  
Doig, Rev. A. J.  
Dudley, J. T.  
Edwards, D. S.  
Edwards, E. E.

Edwards, Rev. .  
Elphinstone, James  
Gill, A. C.  
Gordon, Rev. G. A.  
Griffiths, F. G.  
Halliday, G. C.  
Henderson, R. G.  
Hope, P.  
Hunt, Harold W. G.  
Hunter, T. B.  
Jamieson, S.  
Johnston, J.  
Kinross, R. M.  
Linsley, W. H.  
Lyon, Pearson  
McCook, Rev. A. S.  
Mackay, I. G.  
McLelland, Hugh  
McManamey, James F.  
McNeil, A.  
Manning, R. K.  
Miller, Rev. R.

Moore, J.  
Mowbray, R. W.  
Munro, W. J.  
Nelson, D. J.  
Paine, Bennington H.  
Parker, W. A.  
Perkins, Rev. J. A. R.  
Perské, H.  
Poidevin, L. O. S.  
Pope, Roland J.  
Powell, J. W. G.  
Prentice, A. J.  
Purser, Cecil  
Quigley, J.  
Ramsay, J.  
Robson, R. N.  
Rogers, P. H.  
Rygate, C. D. H.  
Rygate, H. B.  
Shand, A. B.  
Sheppard, E. H.  
Somerville, G. B.

2. Frazer Scholarship.—In 1884, a sum of £1000 was bequeathed by the late Hon. John Frazer, M.L.C., for a Scholarship.

1904—L. Vickers (1st Arts)

3. The Gordon Scholarship.—A sum of £1000 was given in 1882, by the late S. D. Gordon, Esq., M.L.C., for the foundation of a Scholarship for students who have taken the B.A. Degree, or first class in Classics.

1905—M. L. MacCallum (3rd Arts)  
G. A. Sampson (2nd Med.)  
J. Paterson (Divinity 1st)

4. The Lawson Scholarship.—A sum of £1000 (in bank shares) was bequeathed in 1882, by the late George Lawson, Esq., of Yass, for the foundation of a Scholarship for students who have taken the B.A. Degree.

5. The Struth Scholarship.—A sum of £1000 was given in 1884, by J. Struth, Esq., for the foundation of a Scholarship.

1905—H. G. Carter (2nd Eng.)

6. The Horn Scholarships.—In 1883, the late Mr. John W. Horn, of Corstorphine, Edinburgh, bequeathed eighty shares of the A. G. Co., to found three Scholarships.

1905—B. B. Chapman (1st Arts)

7. The Coutts Scholarship.—In 1884, the sum of £1000 was bequeathed by the late Rev. James Coutts, M.A., of Newcastle, for the foundation of a Scholarship. A student of the name of Coutts to have preference.

1905—S. Castlehow (1st Arts)

8. The late Rev. Colin Stewart, M.A., in 1886, bequeathed his property to the College in trust for (among other objects) the founding of Scholarships.

1904—G. N. McKie (3rd Arts)  
J. C. Gibson (1st Theol.)

## II.—PRIZES.

1. The Dean Prize.—A sum of £100 was given in 1879, by Alexander Dean, Esq., for the foundation of an Annual Prize for General Excellence.

2. The Jarvie Hood Prize.

1905—G. A. Sampson

3. Frazer Prize of £25, for Modern History.

1891—Parker, W. A.

1892—A. C. Gill  
J. E. Walker } æq.

1893—A. C. Gill  
J. E. Walker

1894—C. A. White

1895—A. J. Doig  
G. W. Waddell } æq.  
F. G. Griffiths (2nd)

Of the above Scholarships, the Frazer, one Gordon, and the Lawson are restricted to students for the Ministry of the Presbyterian Church. A first class at the University Examinations is a necessary qualification for the Gordon, but not for any of the other Scholarships.

## THE WOMEN'S COLLEGE.

Incorporated by Act 58 Vict., No. 10, and not attached to any religious denomination. In the terms of the Act the Visitor is the Chancellor of the University, or in his absence the Vice-Chancellor. The Corporation consists of the Principal, who must be a woman, and twelve elected Councillors, of whom four at least must be women, and two *ex-officio* Councillors, nominated by the Senate of the University. The Councillors, with the Principal, form the Council in which the government of the College is vested.

According to the Act of Incorporation, the Women's College is a College within the University of Sydney, wherein may be afforded residence and domestic supervision for women students of the University, with efficient tutorial assistance in their preparation for the University Lectures and Examinations. All students in the College not already matriculated shall, as soon as shall be practicable, matriculate in the University, and shall thereafter be required duly to attend the lectures of the University in those subjects, an examination and proficiency in which are required for Degrees, with the exception, if thought fit by any such student, of the Lectures on Ethics, Metaphysics, and Modern History.

The Women's College is strictly undenominational, the Act of Incorporation providing "That no religious catechism or formulary which is distinctive of any particular denomination shall be taught, and no attempt shall be made to attach students to any particular denomination, and that any student shall be excused from attendance upon religious instruction or religious observances on express declaration that she has conscientious objections thereto."

The College fees are as follow :—

*Resident Students.*—£21 for each University Lecture Term, with £2 2s. a week for residence during vacation.

The fee of £21 for the Lecture Term covers all College dues, including fire and light.

The Council provides all necessary furniture, but each student may arrange and add to the furniture in her room as she pleases.

*Non-Resident Students.*—Term fee, £4 4s., or £12 12s. per annum.

## VISITOR.

THE CHANCELLOR OF THE UNIVERSITY.

## PRINCIPAL.

Miss L. Macdonald. M.A. (London).

## COUNCILLORS.

Anderson, H. C. L., M.A. ( <i>ex officio</i> )	McMillan, Sir W., K.C.M.G.
Barff, Mrs., M.A.	Owen, Mrs. Langer
Cohen, Mrs. G.	Rich, G. E., M.A., <i>Hon. Secretary.</i>
Cullen, Hon. W. P., LL.D. ( <i>ex officio</i> )	Stuart, Prof. Anderson, M.D., LL.D.
Fairfax, Miss	Walker, Senator J. T. ( <i>Chairman and</i>
Fairfax, G. E.	<i>Hon. Treasurer</i> )
Kater, Mrs. H. E.	Woolley, Miss
Macdonald, Miss, M.A. ( <i>Principal</i> )	

## M.A.

Cribb, Estelle	Fitzhardinge, Maude Y.	Lance, E. A.
Cordingley, Grace	Jensen, Clio	Wark, F. H.

## B.A.

Armstrong, H. D.	Harker, Constance	Saunders, E. F.
Armstrong, I. B. H.	Hill, Evelyn M.	Skillman, Jessie ( <i>in resi-</i>
Ashton ( <i>née</i> Anderson), Maud E.	Holt, Edith	<i>dence</i> )
Brownlie, E. A. D.	Montefiore, Hortense H.	Stephenson, A. L.
Brownlie, E. A.	Read, Elizabeth J.	Uther, J. B.
Curren, Ethel	Roseby, Minnie	Wilson, G. L.
Dawes, M. M.	Rutherford, F. M.	Wilkinson, I. B.
Dunnicliff, Mary C.	Rutherford, C. M. ( <i>in</i>	Wood ( <i>née</i> Whitfeld),
Fell, C. I.	<i>residence</i> )	Eleanor M.

## M.B. AND CH.M.

Bourne, E. E.	Greenham, Eleanor C.	White, M. I.
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## B.Sc

White (*née* Horton), Marion C.

## UNDERGRADUATES IN RESIDENCE.

Adams, Edith	Clark, M. D.	Murray-Prior, M.
Binney, C. C.	Densley, N.	Noad, E. A.
Bourne, Ida	Dunlop, M. L. T.	Parnell, E. C.
Bowman, M.	Fitzhardinge, J.	Perry, Irene
Browne, E. F.	Jones, Grace E.	Smith, C. R.
Child, S. R.	Maclean, A.	Watson, Eleanor

## EXHIBITIONS.

The Walker Exhibition.—An Exhibition of the value of £25, presented by Mrs. J. T. Walker, given to the student who on entering the College shows evidence of the highest attainments, provided that no student shall be eligible for the Exhibition unless she shall make it appear to the satisfaction of the Principal that she cannot, without such assistance, pay the expenses of residence in the College.

1892—Harker, Constance E.  
1893—Montefiore, H. H.

1894—Saunders, Eva Florence  
1895—De Lissa, Ethel N.

## GRACE FRAZER SCHOLARSHIP.

The Grace Frazer Scholarship, of the value of £30 (being the interest of £1000 invested in New South Wales Government Funded Stock), presented by Mrs. C. B. Fairfax, in memory of her late sister. Awarded upon conditions settled from time to time by the Council, but hitherto tenable for three years.

1892—Whitfield, Eleanor Madeline  
1895—Lance, Elisabeth A.  
1898—Armstrong, Ina Beatrice H.  
1899—Armstrong, H. D. H.

1900—Murray-Prior, D. K.  
1901—Not awarded.  
1902—Skillman, Jessie  
1905—Maclean, A.

## COUNCILLORS' SCHOLARSHIPS.

Two Scholarships, of £25 each, tenable for one year, presented by the Councillors, were awarded in Lent Term, 1898, on the results of the University Examinations.

1893—Harker, C. E.  
Broad, A. W.

One Scholarship, of £25, tenable for one year, awarded on the same terms as the Walker Exhibition.

1895—Saunders, Eva F.  
1896—Dunnicliff, Mary  
1897—Read, E. J.  
1898—Bourne, Eleanor  
1899—Stephenson, A. L.

1900—Brownlie, E. A.  
1901—Saunders, F. L.  
1903—Curren, Ethel  
1904—Clark, M. D.  
1905—Jones, Grace

A Scholarship, of the value of £50, tenable for one year, presented by Miss Walker, of Yaralla, given on similar terms to the Walker Exhibition.

1895—Dunnicliff, Mary  
1896—Read, Elizabeth J.  
1897—Bourne, Eleanor E.  
1898—Divided between Holt, E. J.  
K., and Stephenson, A. L.  
1899—Divided between Brownlie,  
E. A., and Loudon, B. W.  
1900—Saunders, F. L.

1901—Mugliston, M.  
1902—Divided between Curren, Ethel,  
and Mugliston, M.  
1903—Divided between Bourne, Ida,  
and Watson, Eleanor  
1904—Jones, Grace E.  
1905—Divided between Perry, Irene,  
and Smith, Clara R.

A Prize of Books to the value of £5, presented by the Kambala Girls' Union, on similar terms to the Walker Exhibition.

1898—Divided between Holt, E. J.	1900—Murray-Prior, D. K.
K., and Stephenson, A. L.	1901—Mugliston, M.
1899—Loudon, B. W.	1902—Skillman, Jessie

A Prize of Books, presented by the Alliance Française.  
White, M. I.

THE HOLT SCHOLARSHIP.

A Scholarship of the value of £25, presented by Mrs. Holt, Parramatta, given on similar terms to the Walker Exhibition.

Clark, Marjorie D.

THE MARIE WALLIS MEMORIAL PRIZE FOR GERMAN.

A Prize of Books to the value of £2 12s., presented by the former students of "Ascham" to be awarded annually to the Second Year Student who does best in the German Honours Examinations.

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## ROYAL PRINCE ALFRED HOSPITAL.

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*Established and maintained in accordance with the provisions of the "Prince Alfred Hospital Act," 36 Vic., and the "Prince Alfred Memorial Hospital Site Dedication Act," 36 Vic., No. 28.*

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The Hospital was framed as a general Hospital and Medical School for the instruction of students attending the Sydney University, and for the training of nurses for the sick.

The design was adapted to the site dedicated to the Hospital by the Government, aided by the co-operation of the Sydney University.

The Hospital is managed by a Board of fifteen Directors. The Chancellor of the University and the Dean of the Faculty of Medicine are Directors *ex officio*; three Directors are appointed by the Government, and the remaining ten are elected by the Governors and subscribers.

The Medical Officers are all appointed by a conjoint Board, consisting of the Senate of the University and the Directors of the Hospital. This conjoint Board likewise makes the By-laws regulating the mode in which the students shall have access to, and the course of studies to be pursued in, the Hospital.

The University Lecturers in Medicine and Clinical Medicine are Honorary Physicians, the Lecturers in Surgery and Clinical Surgery are Honorary Surgeons, the Lecturer in Ophthalmic Medicine and Surgery is Honorary Ophthalmic Surgeon, and the Lecturer on Diseases of Women is Honorary Surgeon for Diseases of Women at the Royal Prince Alfred Hospital.

All Physicians and Assistant Physicians must be Graduates in Medicine of the University of Sydney, or of some University recognised by the University of Sydney.

All Surgeons and Assistant Surgeons must possess a Degree in Surgery, or a Surgeon's diploma from some University or College of Surgeons recognised by the University of Sydney.

Clinical Lectures are delivered in accordance with the University curriculum. All Honorary and Resident Medical Officers are required to give such Clinical instruction to the Medical students as may be directed by the Conjoint Board.



PATRONS :

H.M. the King.  
H.M. the Queen.  
H.R.H. the Duchess of Edinburgh.

DIRECTORS :

The Chancellor of the University of Sydney.  
The Dean of the Faculty of Medicine (Chairman).

Sir James Fairfax	Dr. Sydney Jones
J. Russell French, Esq.	P. H. McArthur, Esq.
Moritz Gotthelf, Esq.	The Hon. Dr. Mackellar, M.L.C.
Senator A. J. Gould	Dr. F. Antill Pockley
Sir James Graham	William Trotter, Esq.
James Inglis, Esq.	Senator J. T. Walker
The Hon. H. E. Kater, M.L.C.	

*Honorary Treasurer* : The Hon. H. E. Kater.

*Honorary Secretary* : Vacant.

HONORARY CONSULTING PHYSICIAN.—P. Sydney Jones, M.D.  
(Lond.)

HONORARY PHYSICIANS.—Robert Scot-Skirving, M.B., Ch.M.  
(Edin.); Cecil Purser, B.A., M.B., Ch.M. (Syd.); W.  
Camac Wilkinson, B.A., M.D.

HONORARY SURGEONS.—Alexander MacCormick, M.D., Ch.M.  
(Edin.), M.R.C.S. (Eng.); Charles P. B. Clubbe, L.R.C.P.  
(Lond.), M.R.C.S. (Eng.); H. V. C. Hinder, M.B.,  
Ch.M. (Syd.).

HONORARY GYNÆCOLOGICAL SURGEONS.—Jos. Foreman, L.R.C.P.  
(Edin.), M.R.C.S. (Eng.); Edward T. Thring, F.R.C.S.  
(Eng.), L.R.C.P. (Lond.).

HONORARY OPHTHALMIC SURGEON.—F. Antill Pockley, M.B.,  
Ch.M. (Edin.), M.R.C.S. (Eng.).

HONORARY PHYSICIAN FOR DISEASES OF THE SKIN.—F. A. Bennet,  
M.A., M.D.

HONORARY SURGEON FOR DISEASES OF THE EAR, THROAT, AND  
NOSE.—George T. Hankins, M.R.C.S. (Eng.).

HONORARY ASSISTANT PHYSICIANS.—A. E. Mills, M.B., Ch.M.  
(Syd.); Sinclair Gillies, M.A., M.D. (Lond.); G. E.  
Rennie, B.A., M.D. (Lond.); C. Bickerton Blackburn,  
B.A., M.D., Ch.M. (Syd.); E. W. Fairfax, M.B., Ch.M.  
(Syd.).

HONORARY ASSISTANT SURGEONS.—Charles MacLaurin, M.B., Ch.M. (Edin.); G. H. Abbott, B.A., M.B., Ch.M. (Syd.); R. Gordon Craig, M.B., Ch.M. (Syd.).

HONORARY ASSISTANT SURGEON, DISEASES OF WOMEN.—H. C. Taylor Young, M.D.

HONORARY ASSISTANT OPHTHALMIC SURGEON.—H. Guy. S. Warren, M.R.C.S. (Eng.), L.R.C.P. (Lond.).

HONORARY ASSISTANT SURGEON FOR DISEASES OF THE EAR, NOSE AND THROAT.—H. Russell Nolan, M.B., Ch.M.

HONORARY PATHOLOGIST.—Professor Welsh, M.A., B.Sc., M.D., M.R.C.P. (Edin.).

MEDICAL TUTOR.—George Edward Rennie, B.A., M.D. (Lond.).

SURGICAL TUTOR.—John Morton, M.B., Ch.M.

HONORARY SECRETARY OF THE MEDICAL BOARD.—A. E. Mills, M.B., Ch.M. (Syd.).

MEDICAL SUPERINTENDENT.—A. H. Macintosh, M.B., Ch.M.

SENIOR RESIDENT MEDICAL OFFICERS.	{	ANÆSTHETIST AND REGISTRAR.—St. J. W. Dansey, M.B., Ch.M. RESIDENT PATHOLOGIST.—G. A. Buchanan, M.B., Ch.M.
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RESIDENT RADIOGRAPHER.—T. P. Connolly, M.B., Ch.M.

JUNIOR RESIDENT MEDICAL OFFICERS.—P. E. W. Smith, M.B., Ch.M.; J. L. McKelvey, M.B., Ch.M.; V. McDowall, M.B., Ch.M.; G. H. Vernon, M.B., Ch.M.; A. S. C. Roberts, M.B., Ch.M.; J. M. McEncroe, M.B., Ch.M.



## ROYAL PRINCE ALFRED HOSPITAL.—MEDICAL SCHOOL.

### *Rules and Regulations for the Clinical Study and Training of the University Students of Medicine.*

The Hospital shall be open to students for Clinical work from 9 a.m. to 5 p.m. throughout the year.

In order to obtain the certificate of hospital practice necessary to qualify for admission to the Final Examination for the Degrees of Bachelor of Medicine and Master in Surgery of the University of Sydney, students are required to pass through the hospital curriculum of study and practice in the various departments, according to the following scheme and time table of Clinical work.

The respective duties of all students, under the time table, shall be apportioned by the Medical Superintendent, and the necessary certificates will only be issued to those students who have shown punctuality, diligence, and efficiency in the performance of the duties assigned to them.

The Registrar shall report in writing to the Medical Superintendent each month as to the work done in his department by each Clinical Clerk and Surgical Dresser, and the Medical Superintendent shall obtain reports from the members of the Honorary and Resident Medical Staff concerning the character of the work done by the students under supervision.

The Medical Superintendent shall report to the House Committee upon the character of the work done by each fourth and fifth year student, at the first or second meeting after the end of each term.

Students attending the Hospital shall be arranged by the Medical Superintendent in four divisions in each year, A, B, C and D respectively, and a list of the names thus appointed to the various departments shall be hung up in the Board Room and the Entrance Hall of the Hospital.

### CLINICAL WORK TABLE.

#### FOURTH YEAR STUDENTS.

GROUP.	LONG VACATION.	LENT TERM.
A.	Casualty and Surgical Out Patients.	Surgical Ward Dressing. Clinical Surgery Lectures.
B.	Surgical Ward Dressing.	Casualty Dressing. Surgical Out Patients' Attendance. Clinical Surgery Lectures.
C.	Attendance optional.	Surgical Ward Dressing. Clinical Surgery Lectures.
D.	Attendance optional.	Surgical Ward Dressing. Clinical Surgery Lectures.

## MEDICAL SCHOOL.

## FOURTH YEAR STUDENTS.

GROUP.	TRINITY TERM.	MICHAELMAS TERM.
A.	Surgical Ward Dressing.	Clinical Surgery Lectures.
B.	Surgical Ward Dressing.	Surgical Ward Dressing (optional).
C.	Clinical Surgery Lectures.	Clinical Surgery Lectures.
	Casualty Dressing.	Surgical Ward Dressing.
D.	Surgical Out Patients' Attendance.	Clinical Surgery Lectures.
	Surgical Ward Dressing.	Casualty Dressing.
		Surgical Out Patients' Attendance.
		Clinical Surgery Lectures.

## FIFTH YEAR STUDENTS.

GROUP.	LONG VACATION.	LENT TERM.
A.	Attendance optional.	Clinical Clerkship, General Medical Wards.
B.	Attendance optional.	Clinical Clerkship, General Medical Wards.
C.	Clinical Clerkship, General Medical Wards.	Clinical Clerkship, General Medical Wards.
	Clinical Clerkship, Gynæcological Ward	Gynæcological Out Patients' Attendance.
D.	Medical Out Patients' Attendance.	Clinical Clerkship, General Medical Wards.
	Clinical Clerkship, General Medical Wards.	Clinical Clerkship, Gynæcological Wards.
	Gynæcological Out Patients' Attendance	Medical Out Patients' Attendance.

GROUP.	TRINITY TERM.	MICHAELMAS TERM.
A.	Clinical Clerkship, General Medical Wards.	Clinical Clerkship, General Medical Wards.
	Clinical Clerkship, Gynæcological Ward	Gynæcological Out Patients' Attendance.
B.	Medical Out Patients' Attendance.	Clinical Clerkship, General Medical Wards.
	Clinical Clerkship, General Medical Wards.	Clinical Clerkship, Gynæcological Ward.
	Gynæcological Out Patients' Attendance	Medical Out Patients' Attendance.
C.	Clinical Clerkship, General Medical Wards.	Attendance optional.
D.	Clinical Clerkship, General Medical Wards.	Attendance optional.

It shall be the duty of each Clinical Clerk to take the history of every patient admitted to the beds placed under his charge within forty-eight hours of admission, and to make all needful periodical reports upon the progress, symptoms, treatment, and results of each case.

It shall be the duty of each Surgical Dresser to take the history of every patient under his charge within twenty-four hours of admission, and to make all needful periodical reports upon the progress, symptoms, treatment and results of each case.

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## OTHER HOSPITALS

RECOGNISED BY THE UNIVERSITY AS PLACES WHERE STUDY MAY  
BE CARRIED ON IN CONNECTION WITH THE  
FACULTY OF MEDICINE.

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THE SYDNEY HOSPITAL.

ST. VINCENT'S HOSPITAL.

THE ROYAL HOSPITAL FOR WOMEN.

THE HOSPITAL FOR SICK CHILDREN.

THE GLADESVILLE HOSPITAL FOR THE INSANE.

THE CALLAN PARK HOSPITAL FOR THE INSANE.

THE WOMEN'S HOSPITAL.

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## UNIVERSITY DENTAL HOSPITAL.

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This Hospital was established in 1901 for the purpose of providing dental attendance for persons unable to pay the fees of ordinary dentists, and also to provide facilities for the instruction of the students attending the University Dental School. The business of the Hospital is carried on in a building at the corner of George and Bathurst Streets, opposite St. Andrew's Cathedral. It is proposed to amalgamate with the Dental Hospital of Sydney on June 1st, 1905.

The Hospital is open for the treatment of patients from 2 to 5 p.m. daily, Saturdays excepted.

The Honorary Dental Surgeons are appointed by the Senate of the University.

The University Lecturers in Surgical and Mechanical Dentistry are *ex officio* Honorary Dental Surgeons of the Hospital, and additional Honorary Dental Surgeons have been appointed.

The fee payable by students for the dental practice of the Hospital is £5 5s. per annum.

### HONORARY DENTAL SURGEONS

R. Fairfax Reading, M.R.C.S., L.R.C.P., L.D.S. (Eng.) (*ex officio*).  
 W. Septimus Hinder, D.D.S. (Phila.) (*ex officio*).  
 N. V. Pockley, D.D.S. (Phila.) (*ex officio*).  
 H. S. Du Vernet, D.D.S. (Phila.).  
 Adin T. Parsons, D.D.S. (Phila.).  
 P. B. Reading, L.D.S. (Eng.).  
 W. H. Weston, M.D., D.D.S.  
 P. A. Ash, D.D.S. (Phila.).  
 E. F. Deck, L.D.S. (Eng.), D.D.S. (Phila.).  
 Donald Smith.

### HONORARY CONSULTING SURGEONS.

E. W. Fairfax, M.B., Ch.M.  
 C. MacLaurin, M.B., Ch.M.

### HONORARY ANÆSTHETISTS.

E. H. Binney, M.B., Ch.M. (Lecturer)  
 C. B. Blackburn, M.D., Ch.M.  
 E. Ludowici, M.B., Ch.M.

*Instructor in Mechanical Dentistry*—A. B. A. Palmer.

*Dental Superintendent*—1904-5—A. P. B. Dolan, L.D.S.  
 1905-6—B. W. Neave, L.D.S.

# BENEFACTIONS

## BESTOWED BY PRIVATE PERSONS.

Date.	Donor.	Amount.	Object of Foundation.
		£ s. d.	
1853	Solomon Levey, Esq. ...	500 0 0	<i>Scholarship</i> —Originally for education of Orphans in the Sydney College; now for Natural Science in Second Year in the University.
	Thomas Barker, Esq. ...	1,000 0 0	„ For Proficiency in Mathematics.
1854	Hon. Sir E. Deas-Thomson, C.B., K.C.M.G. ...	1,000 0 0	„ For Proficiency in Chemistry and Experimental Physics.
	W. C. Wentworth, Esq. ...	200 0 0	<i>Annual Prize</i> —For English Essay.
1857	Sir D. Cooper, Bart. ...	1,000 0 0	<i>Scholarship</i> —For Proficiency in Classics.
1858	S. K. Salting, Esq. ...	500 0 0	<i>Exhibition</i> —For a Student from the Sydney Grammar School.
1862	W. C. Wentworth, Esq. ...	445 0 0	<i>Fellowship</i> —For a Travelling Fellowship (amount to accumulate sufficiently).
1864	W. Lithgow, Esq. ...	1,000 0 0	<i>Scholarship</i> .
1867	Sir C. Nicholson, Bart. Educational Fund, devised by Dr. Gilchrist, of Sydney. ...	200 0 0	<i>Annual Prize</i> —For Latin Verse. The right of the Presentation every other year to a Scholarship of £100 per annum, tenable for three years, and to be held at the University of London or of Edinburgh. Withdrawn by the Gilchrist Trustees in 1882.
1870	Earl Belmore ...	300 0 0	<i>Annual Prize</i> —For Agricultural Chemistry.
1872	Hon. John Fairfax ...	500 0 0	„ For Females at the Public Examinations.
1874	Mrs. Maurice Alexander ...	1,000 0 0	<i>Bursary</i>
1880	„ „ ...	1,000 0 0	„ To assist young men in entering a Learned Profession.
1874	Subscribers to testimonial to Rev. John West Edwin Dalton, Esq. ...	200 0 0	<i>Annual Prize</i> —At Public Examinations.
		8,000 0 0	<i>Scholarships</i> —In memory of the Rev. Dr. Woolley.
1876	Hon. John Frazer ...	2,000 0 0	<i>Bursaries</i> —In memory of his deceased sons.
	Fitzwilliam Wentworth Esq. ...	2,000 0 0	„ In honour of his father, William Charles Wentworth.
	Mrs. Burdekin ...	1,000 0 0	<i>Bursary</i> .
	Mrs. Hunter-Baillie ...	1,000 0 0	„
1877	„ „ ...	1,000 0 0	„ For sons of Ministers of Religion.
1877	} Hon. J. B. Watt ...	3,000 0 0	<i>Exhibitions</i> —For Students from Primary Schools.
1888			
1889			
	Professor Smith ...	350 0 0	<i>Lectureship</i> —In Geology.
1877	Sir Arthur Renwick, M.D. ...	1,000 0 0	<i>Scholarship</i> —In the Faculty of Medicine.

Date.	Donor.	Amount.			Object of Foundation.
		£	s.	d.	
1877	Andrew R. Cameron, Esq., M.D.	1,100	0	0	Scholarship—For General Proficiency.
	Mrs. Hovell ... ..	6,000	0	0	Lectureship—Geology and Physical Geography.
1878	Hon. George Allen ...	1,000	0	0	Scholarship—For Mathematics.
	Sir Charles Nicholson, Bart.				Collection of Egyptian Antiquities, etc.
	J. H. Challis, Esq. ...	750	0	0	For Great Northern Window in University Hall.
	Sir Charles Nicholson, Bart.	500	0	0	For Great Western Window.
	Sir Daniel Cooper, Bart.	500	0	0	For Great Eastern Window.
	Henry O'Brien, Esq. ...	100	0	0	For Side Windows in the Hall.
	Charles Newton, Esq. ...	100	0	0	
	Edward Knox, Esq. ...	100	0	0	
	William Long, Esq. ...	100	0	0	
	John Dobie, Esq. ...	100	0	0	
	Robert Fitzgerald, Esq.	100	0	0	
	A. Moses, Esq. ...	100	0	0	
	John Reeve, Esq. ...	100	0	0	
	Thomas Barker, Esq. ...	100	0	0	
	Henry and Alfred Denison, Esqs.	100	0	0	
	Thomas W. Smart, Esq.	100	0	0	
	Sir P. A. Jennings ...	1,100	0	0	Towards an Organ for the Great Hall.
	Sir A. Renwick, M.D. ...	125	0	0	For purchase of book, "Lepsius' Antiquities of Egypt and Æthiopia."
	Thomas S. Mort, Esq. ...	315	0	0	For a Travelling Fellowship.
	Thomas Walker, Esq. ...	700	0	0	Being the amount paid by him for the Library of the late Mr. Stenhouse, presented to the University.
	Freemasons under the English Constitution	1,000	0	0	Scholarship—For the sons of Freemasons.
1880	J. H. Challis, Esq. ...	250,000	0	0	Bequest—Property of the estimated value of £250,000, to be applied to the general purposes of the University.
	Thomas Walker, Esq. ...	500	0	0	Towards an Organ for the Great Hall.
	Fitzwilliam Wentworth Esq.	415	0	0	To provide a Screen for the Organ Gallery.
	James Aitken, Esq. ...	1,000	0	0	Bursary or Scholarship.
	Thomas Walker, Esq. ...	5,000	0	0	Bursaries.
1882	Sir G. W. Allen ...	1,000	0	0	Scholarship—In the Faculty of Law.
1883	John Struth, Esq. ...	1,000	0	0	Exhibition—In the Faculty of Medicine.
1885	Thos. Fisher, Esq. ...	30,000	0	0	For establishing and maintaining a Library in the University.
1886	Subscribers to Testimonial of Rev. Dr. Norbert Quirk.	143	12	6	Annual Prize—For Mathematics.
1887	Professor Smith ...	100	0	0	" For Physics.
	G. S. Caird, Esq. ...	1,000	0	0	Scholarship—In Chemistry.
	Subscribers to Memorial to Late Professor Badham.	1,000	0	0	Bursary.
1888	G. P. Slade, Esq. ...	250	0	0	For the Advancement of Science.
	William Roberts, Esq. ...	4,000	0	0	Scholarship—In memory of Mr. James King, of Irrawang, Raymond Terrace.
	Hon. Sir W. Macleay ...				Museum of Natural History.
	Hon. Sir W. Macleay ...	6,000	0	0	For establishing a Curatorship for the Macleay Museum of Natural History.



## BENEFACTIONS.

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Date.	Donor.	Amount.			Object of Foundation.
		£	s.	d.	
1898	John Harris, Esq. ...	1,000	0	0	<i>Scholarship</i> —In the Faculty of Medicine.
	Lady Renwick ...	202	0	0	For a Window in the Medical School, in memory of her late father.
1899	P. S. Jones, Esq., M.D.	220	0	0	{ For Windows in the Medical School.
	G. Bennett, Esq., M.D.	140	0	0	
	The Trustees of the Council of Education Scholarship Fund.	290	10	1	<i>Scholarship</i> —For Sons of Officers of the Department of Public Instruction.
	John Harris, Esq. ...	120	0	0	For a Window in the Medical School, in memory of the late Dr. Harris.
1899	F. J. Horner, Esq., M.A.	200	0	0	<i>Exhibition</i> —In Mathematics.
	The Trustees of the Will of the Hon. John Fraser, M.L.C.	2,000	0	0	<i>Scholarship</i> —In History.
	George Bennett, Esq., M.D.				John Gould's Works on Ornithology.
	William Grahame, Esq.	100	0	0	<i>Annual Prize</i> —In the Senior Public Examination.
1892	Rev. R. Collie, F.L.S....	100	0	0	<i>Annual Prize</i> —For Botany.
1896	P. N. Russell, Esq. ...	50,000	0	0	{ For the endowment of the P. N. Russell School of Engineering.
1904	"	50,000	0	0	
1898	Thomas Garton, Esq. ...	2,050	0	0	<i>Scholarships</i> —In French and German.
1900	Henry Wait, Esq. ...	1,000	0	0	<i>Bursary</i> —In the Faculty of Medicine.
	Mrs. George Harris ...	1,700	0	0	<i>Scholarship</i> —In the Faculty of Law.
	Cecil Darley, Esq. ...				An Astronomical Equatorial Telescope and Accessories.
1901	Earl Beauchamp ...	625	0	0	Prize for an English Essay.
	Mrs. Jessie E. Duncan	808	19	6	<i>Bursary</i> .
1903	George Masters, Esq....				A Natural History Collection.
1904	Kambela Girls' Union	250	0	0	<i>Annual Prize</i> —For Girls at Matriculation.
1905	Queen Victoria Scholarship.	308	17	2	<i>Scholarship</i> —For Girls at Matriculation.

# A LIST OF DONATIONS TO THE LIBRARY,

APRIL, 1904, TO MARCH, 1905.

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Twenty-three Specimens of Educational Publications by Messrs. Macmillan and Co. ; and two by Messrs. Geo. Bell and Co.

Calendars and other Publications by the following Universities, etc. :—

Aberdeen, Adelaide, Allahabad, Auckland, Bendigo School of Mines, Birmingham, Bombay, Brown (Providence), Budapest, Calcutta, California, Cambridge, Canterbury College (Christchurch), Cape of Good Hope, Catania, Chicago, Clinical Society (London), Columbia (New York), Columbus (Ohio), Cornell, Dalhousie (Halifax), Dublin, Durham (College of Medicine), Edinburgh, Evanston, Glasgow, Grenoble, Harvard (Cambridge), Iowa, Japan (Tokyo), Johns Hopkins (Baltimore), King's College (London), Klausenburg, Kyoto, Lemberg, Lille, Liverpool, London, Lyon, Madras, McGill College (Canada), Melbourne, Michigan, Missouri, Montana, New Zealand, New York, North Wales (Bangor), North-Western, Ohio, Otago, Owen's College (Manchester), Padua, Panjab (Lahore), Paris, Pennsylvania, Perth Technical School, Pisa, Princeton (New Jersey), Queen's College and University (Canada), Regia Università degli Studi di Roma, Rennes, Royal College of Surgeons (London), Royal University of Ireland, St. Andrew's, Sanskrit College (Benares), South Australia School of Mines, Syracuse, Tasmania, Torino, Toronto, Trinity College (London), Trinity College (Dublin), Union of Graduates in Music, Universidad Central des España, University College (Auckland), University College (Liverpool), University College (South Wales and Monmouthshire), Venezuela, Vermont, Victoria (Manchester), Worcester Polytechnic Institute, Yale (New Haven), Yorkshire College (Leeds), Zurich.

Proceedings, Transactions, etc., from the following Societies, etc. :—

Aachen Technischen Hochschule, Aberdeen Public Library, Académie de Neuchâtel, Académie Nationale des Sciences (Cordoba), Adelaide Public Library, American Climatological Association, Australian Institute of Mining Engineers, Australian Museum, Biblioteca Nazionale Centrale di Firenze, British Museum, Cambridge Philosophical Society, Carnegie Museum (Pittsburg), Chicago Academy of Sciences, Clinical Society of London, Colombo Museum, Earthquake Investigation Committee (Tokyo), Ecole Pratique des hautes études, Egyptian Government School of Medicine (Cairo), Engineering Association of New South Wales, Glasgow Philosophical Society, Hunterian Collection Trustees (Glasgow University),

Institute of Chemistry (London), Institute of Civil Engineers (London), Institute of Electrical Engineers, Intercolonial Medical Congress, International Engineering Congress, John Rylands Library, Linnean Society of New South Wales, London School of Economics, Malay States Institute for Medical Research, Manchester Steam Users' Association, Medical Council (London), Middlesex Hospital, National Academy of Science (Washington), National Physical Laboratory (England), New Sydenham Society, New Zealand Institute, Osservatorio Vaticano (Roma), Pathological Society of London, Pharmaceutical Society of Great Britain, Royal Prince Alfred Hospital (Sydney), Regia Scuola Superiore di Agricoltura di Portici, Royal Academy of Medicine (Ireland), Royal College of Physicians (London), Royal College of Science (London), Royal College of Surgeons of England, Royal Colonial Institute (London), Royal Irish Academy (Dublin), Royal Societies of Canada, Dublin, Edinburgh, London, New South Wales, Queensland, South Australia, and Victoria; St. Bartholomew's Hospital (London), Smithsonian Institution (Washington), Société française de Physique, South African Museum, South African Philosophical Society, Sydney Public Library, Sydney University Engineering Society, Technological Museum of New South Wales, Thames School of Mines (New Zealand), Tokyo Zoological Society, Transvaal Technical Institute, University Club (New York), Volta Bureau (Washington), Wellcome Chemical Research Laboratories, Wesleyan Methodist Mission House, Wisconsin Academy of Science, Worcester Polytechnic Institute, Zeehan School of Mines, Zurich Naturforschenden Gesellschaft.

Publications of the Archaeological Survey and Meteorological Department of India; Bureau of American Ethnology; Bureau of Education, Coast and Geodetic Survey, Department of Agriculture and Geological Survey of United States; Familistère de Guise; Geological Survey of Minnesota; Geological Survey of Canada; Government Printing Office, Burma; Mines Department of New Zealand; State Library, Albany, United States.

Acts of the Parliament of Victoria and Report of the Minister of Public Instruction, by the Government of New Zealand.

Proceedings of the Legislative Assembly of Queensland, by the Government of Queensland.

Statutes of New Zealand, by the Government of New Zealand.

Meteorological Observations, by the Government Astronomers of South Australia and Western Australia.

Report of the Royal Observatory, Cape of Good Hope, by the Government Astronomer of South Africa.

Publications of the Government of New South Wales, by the Government of New South Wales.

Records of the Sydney Observatory, by the Government Astronomer.

Books, etc., were presented by the Lords of the Treasury of Great Britain and Ireland, K. Binns, Esq., J. Le Gay Brereton, Esq., Professor Carslaw, Professor F. Goppilsroeder, Professor W. A. Haswell, H. S. Jevons, Esq., Messrs. Macmillan & Co., Lady Meux, J. Tebbutt, Esq., Mrs. Wardell, Adair Welcker, Esq., Professor Wilson, Professor Woodhouse.

Books, etc., were presented to the Library in terms of the "Copyright Act, 1879," by The Bulletin Publishing Company, Casino Song Publishing Company, The John Farrell Memorial Committee, The Law Book Publishing Company of Australasia, Messrs. Angus & Robertson, Baker & Rouse, George Black, W. Brooks & Co., S. F. Broomhall, R. Desjardins, A. Gehde, Glen & Co., Gordon & Gotch, C. J. W. Green, Hepburn & Spruson, Kealey & Philip, Methodist Church of Australia, N.S.W. Athletic League, W. H. Paling & Co., W. C. Penfold & Co., A. H. Prince, John Sands, J. Slater, W. E. Smith, W. H. Sproull & Co., J. J. Virgo, F. Walsh, C. E. Wilton, and the publishers of Aborigines' Advocate, Australasian Medical Gazette, Australian Field, Australian Hen, Australian Journal of Education, Australian Photographic Journal, Barraba Gazette, Courier Australien, Christian World, Dalgety's Review, Dawn, Good Health, Hall's Mercantile Gazette, Home Queen, Journal of the Institute of Bankers, Knaggs' Almanac, Nepean Times, New South Wales Educational Gazette, New South Wales Teacher, Pastoralists' Review, The Pilot, Players, New South Wales Railway Budget, The Review, Sands' Sydney and Suburban Directory, Sheepbreeders' Year Book, Sydney Daily Telegraph, Sydney Diocesan Directory, Sydney Mail, Sydney Morning Herald, Stock and Station Journal, Trade Protection Institute Reports, White Wings, Wilcox's Review, Year Book of Australia.

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# REPORT

## OF THE

# SENATE OF THE UNIVERSITY

## OF SYDNEY

FOR THE YEAR ENDED 31st DECEMBER, 1904.

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1. The Senate of the University of Sydney, in pursuance of the provisions of section 16 (1) of the "University and University Colleges Act, 1900," has the honour to transmit the account of its proceedings during the year 1904 for the information of His Excellency the Governor and Executive Council.

### *Matriculation.*

2. The number of persons who qualified themselves for Matriculation in 1904 by passing one of the various University Examinations was 364. Of these, 134 passed the ordinary Matriculation Examination, 127 the Junior Public Examination, 17 the Law Matriculation Examination, 63 the Senior Public Examination, and 23 the Entrance Examination for Law, Medicine and Science. The number of students actually admitted to Matriculation, with a view to proceeding with the curriculum in one of the various Faculties, was 167.

### *Attendance at Lectures.*

3. The following table shows the number of students who attended lectures in the several Faculties :—

Faculty of Arts (day), 225 ; (evening), 121. Total .. ..	346
Faculty of Law .. .. .	49
Faculty of Medicine (including five post graduate students) ..	220
Faculty of Science .. .. .	33
Faculty of Science—Department of Engineering .. ..	87
School of Dentistry .. .. .	34
Pharmacy Students .. .. .	61
Total .. ..	<u>820</u>

Included are 96 women who attended in the Faculty of Arts, 20 in Medicine, 4 in Science, 1 in Dentistry and 1 in Pharmacy; total, 122. The above total also includes 33 non-matriculated students, and 37 students attending special courses, irrespective of Pharmacy students.

*Annual University Examinations.*

4. The number of students who attended and passed the Annual Examinations in December, 1903, and March, 1904, after attending the prescribed courses of lectures, is shown in the following table:—

**FACULTY OF ARTS.**

	Candidates.	Passed.
First Year Examination .. .. .	135	97
Second Year Examination .. .. .	61	50
Third Year Examination .. .. .	54	50

In addition to the students passing through the regular curriculum, 56 evening students and students of special subjects, including five women, passed the examinations in individual subjects, after attendance upon the prescribed lectures.

**FACULTY OF LAW.**

	Candidates.	Passed.
Intermediate Examination .. .. .	14	12
Final Examination .. .. .	12	10

**FACULTY OF MEDICINE.**

	Candidates.	Passed.
First Year Examination .. .. .	41	33
Second Year Examination .. .. .	37	35
Third Year Examination .. .. .	31	29
Fourth Year Examination .. .. .	31	31
Fifth Year Examination .. .. .	20	17

**FACULTY OF SCIENCE.**

	Candidates.	Passed.
First Year Examination .. .. .	7	6
Second Year Examination .. .. .	3	3
Third Year Examination .. .. .	2	2

**FACULTY OF SCIENCE—DEPARTMENT OF ENGINEERING.**

	Candidates.	Passed.
First Year Examination .. .. .	28	21
Second Year Examination—Civil .. .. .	8	3
“ “ “ Mining and Metallurgy .. .. .	11	9
“ “ “ Mechanical and .. .. .		
“ “ “ Electrical .. .. .	9	7
Third Year Examination—Mining and Metallurgy .. .. .	20	14
“ “ “ Mechanical and .. .. .		
“ “ “ Electrical .. .. .	4	4
Fourth Year Examination—Mechanical and .. .. .		
“ “ “ Electrical .. .. .	2	2

In the Faculty of Science and the Department of Engineering 9 students of special subjects passed in the final examinations of their subjects.

## SCHOOL OF DENTISTRY.

	Candidates.	Passed.
First Year Examination .. .. .	15	12
Second Year Examination .. .. .	9	9
Third Year Examination .. .. .	9	8

Forty-two students seeking a qualification in Pharmacy attended the University Examinations at the conclusion of the courses of lectures which they had attended. Twenty passed in individual subjects, eleven completing the whole course.

*Degrees Conferred.*

5. The following degrees were conferred after examination :—

**Master of Arts (M.A.)** :—George Alexander Chambers, Thomas Simpson Crawford, Philip Herbert Louis, Sarah Molster, Joseph Parsons, William Michael Smith, Herbert George Stoyles, Roy Noel Teece, Mary Handfield Uther, Hector Wilshire.

**Bachelor of Arts (B.A.)** :—Leslie Holdsworth Allen, Virginia Anderson, John George Beckenham, Reginald Schofield Bonney, Edwin Andrew Brearley, George Edward Brown, William Thomas Cameron, Alexander Petrie Campbell, Robert Smith Candlish, Daisy Carey, William John Smythe Carroll, Ada Mary Carruthers, Frederick William Dean Collier, Edith Collings, Albert Zarenne Compton, Karl Reginald Cramp, George Harvard Cranswick, Victor Clark Duff, Sara Evans, Arthur Donnelly Fisher, Edith May Fry, Ernest James Goddard, Thomas Herbert Goddard, Thomas Cosgrave Hewitt, Eirene Anna Holloway, Harold Vivian Jaques, Frederick Richard Jordan, Alfred Manning Levick, Bertha Winifred Loudon, Clara Lowick, Ettie Lyons, Isabella Renton MacCallum, Isabel Mary MacInnes, Iven Giffard Mackay, William Maxwell, Irene Madeline Morley, Madeline Lucy Mugliston, Charles O'Connor Murray, Dorothea Katherine Murray-Prior, Reginald Robert Noake, James William Garnet Powell, Roberta Jane Sinclair Reid, Ruth Irene Rofe, Cyril Petersen Schrader, Elizabeth Skillen, John Spence, Mabel Harriet Sutton, Percy Richard Watts, Charles Ernest Weatherburn, Arthur Russell Wheeler.

**Bachelor of Laws (LL.B.)** :—Joseph Alexander Browne, William John Curtis, Antoine William M. d'Apice, David Pentland Evans-Jones, Bartley Francis Fahey, William Samuel Hinton, Alexander James Kilgour, Arthur Gladstone Matcham Pitt, Ebenezer Frank Vickery, George Harry Wilson.

**Doctor of Medicine (M.D.):**—Edwin Cuthbert Hall, Robert Blakeway Wade, Thomas George Wilson.

**Bachelor of Medicine (M.B.):**—Francis Charles Adams, Harry Charles Rikard Bell, Vivian Benjafield, Lionel Wilfred Bond, Claude Seccombe Browne, George Arthur Buchanan, Edwin Claude Chisholm, Thomas Patrick Connolly, Constance Elizabeth D'Arcy, Robert Spencer Godsall, Harold Octavius Lethbridge, William Mawson, Richard Perkins, Arthur Bradridge Phillips, Granville Gilbert Sharp, Murray Menzies Vernon, George Arthur Vivers.

**Master of Surgery (Ch.M.):**—Harry Charles Rikard Bell, Vivian Benjafield, Lionel Wilfred Bond, Claude Seccombe Browne, George Arthur Buchanan, Edwin Claude Chisholm, Thomas Patrick Connolly, Anstruther John Corfe, Constance Elizabeth D'Arcy, Robert Spencer Godsall, Harold Octavius Lethbridge, William Mawson, Richard Perkins, Arthur Bradridge Phillips, Granville Gilbert Sharp, Edgar Horatio Milner Stephen, Murray Menzies Vernon, George Arthur Vivers.

**Doctor of Science (D.Sc.):**—Walter George Woolnough.

**Bachelor of Science (B.Sc.):**—Harold Ingemann Jensen, Thomas Griffith Taylor.

**Bachelor of Engineering (B.E.):**—John Nicholas Fraser Armstrong, James Barr, Vyvyan Christopher Bennett, Philip Caro, Arthur Francis Cohen, Riverine Norman Dart, Ambrose William Freeman, James Henry Fraser Hill, Benjamin Gilmore Patterson, James William Robertson, George Joseph Saunders, Wilton Shellshear, Percy Leonard Weston.

**License in Dental Surgery (L.D.S.):**—John Houghton Bradley, Frederick Richard Crouch, Alfred Pearson Berkeley Dolan, Edgar Alexander MacTaggart, Frank Marshall, Bevan Walter Neave, Annie Praed, Leslie George Stockwell.

6. The total number of degrees conferred during the year was as follows:—M.A., 10; B.A., 50; LL.B., 10; M.D., 3; M.B., 17; Ch.M., 18; D.Sc., 1; B.Sc., 2; B.E., 13; L.D.S., 8. Total, 132.

7. The degrees conferred by the University from its foundation to the end of 1904 are:—M.A., 321; B.A., 1198; LL.D., 25; LL.B., 119; M.D., 48; M.B., 283; Ch.M., 206; D.Sc., 1; B.Sc., 51; M.E., 4; B.E., 129. Total, 2393.

#### *University Examinations.*

8. The results of the Annual University Examinations, held in December, 1903, and March, 1904, including the award of Annual Prizes and Scholarships, will be found appended to this report.



*James King of Irrawang Travelling Scholarship.*

9. The James King of Irrawang Travelling Scholarship (£130 per annum for two years) was awarded to Mr. Leslie Holdsworth Allen, B.A., a distinguished student in the Department of Classics. Mr. Allen is pursuing his studies in the University of Leipzig.

*Prize Compositions.*

10. The awards made for Prize Composition are as follows:—

*University Prize for English Verse.*—Subject: “The Birthday Feast of Herod Antipas.” H. M. Green, B.A.

*Wentworth Medal for English Essay—Graduates.*—Subject: “The Principles and Methods of Literary Criticism.” H. M. Green, B.A.

*The Beauchamp Prize for Essay.*—Subject: “The Value of Education as a Factor in Commercial and Industrial Progress.” H. M. Green, B.A.

*Nicholson Medal for Latin Verse.*—Subject: “The Death of Socrates.” L. H. Allen, B.A.

*Professor Anderson’s Medal for a Philosophical Essay.*—Subject: “The Idea of Development in its Application to Religion.” A. H. Austin, B.A.

*Bursaries, etc.*

11. The number of students permitted to attend lectures without paying fees was 128, including 42 State Bursars and holders of the University Bursaries, and 73 students and ex-students of the Training College. The payments to bursars, other than State Bursars, amounted to £635, and to scholars, £1725.

12. The following bursaries were awarded, each consisting of a payment to the student of a certain sum per annum, for three years, together with exemption from the payment of lecture fees in the Faculty of Arts, or that of pure Science:—

The *Ernest Manson Frazer Bursary* (£25).

The *Hunter-Baillie Bursary No. II.* (£25).

The *John Ewan Frazer Bursary* (£25).

The *William Charles Wentworth Bursaries* (£100).

The *Thomas Walker Bursary* (£25).

*Public Examinations.*

13. The Junior Public Examination was held in the month of June, in Sydney, and at the following local centres:—

**NEW SOUTH WALES.**—Albury, Armidale, Bega, Bathurst, Berry, Bombala, Brewarrina, Burrowa, Coonamble, Cowra, Dubbo, Frederickton, Forbes, Girilambone, Glen Innes, Goulburn, Grafton, Grenfell, Gunnedah, Hay, Inverell, Junee, Lismore, Lithgow, Maitland, Mathoura, Milton, Mittagong, Moree, Mount Victoria, Mudgee, Murrumburrah, Newcastle, Orange, Parramatta, Queanbeyan, Rylstone, Scone, Singleton, Tamworth, Temora, Tenterfield, Wagga Wagga, Wahroonga, Windsor, Wingham, Wollongong, Wyalong.

**QUEENSLAND.**—Brisbane, Bundaberg, Charters Towers, Ipswich, Maryborough, Rockhampton, Toowoomba, Townsville, Warwick.

The number of candidates was 1254, and of these 853 gained certificates.

14. The Senior Public Examination was held in November concurrently with an examination for Matriculation Honours and Scholarships, in Sydney, and at the following local centres:—

**NEW SOUTH WALES.**—Armidale, Bathurst, Goulburn, Maitland, Wagga Wagga, Wahroonga.

**QUEENSLAND.**—Brisbane, Ipswich, Maryborough, Rockhampton.

The number of candidates was 130, and of these 117 were successful.

15. The Prizes for general proficiency in the Senior and Junior Public Examinations were awarded as follows:—

*Seniors.*

*John West Medal and Grahame Prize Medal—*

Stanley Castlehow, Brisbane Boys' Grammar School, Q.

*Fairfax Prize for Senior Females—*

Lillian Alexia MacLean, Ipswich Girls' Grammar School, Q.

*Juniors.*

*University Prize for General Proficiency among male candidates—*

Neal William Macrossan, Christian Brothers' College, Brisbane, Q.

<i>Prox.</i> <i>acc.</i>	{	Arthur Lang Campbell, Boys' Public High School, Sydney.
		Frederick Walter Robinson, do. do.
		John George Vickers, Sydney Grammar School.

*Fairfax Prize for female candidates—*

Mabel Alice Ballantine, Ipswich Girls' Grammar School, Q.

*Examination for Articled Clerks.*

16. Three Law Examinations were held, similar to that prescribed for Matriculation, for candidates for articles of Clerkship with Solicitors. At these examinations there were 28 candidates, and 17 passed.

*Meetings of Senate.*

17. The Senate held 11 ordinary meetings and four special meetings, in addition to the Annual Commemoration. There was also one meeting of the Conjoint Board, consisting of the Senate of the University and the Directors of the Prince Alfred Hospital.

The attendances of the various Fellows were as follows:—

MacLaurin, the Hon. Sir Normand, M.A., LL.D., M.D., M.L.C., Chancellor .. .. .	17
Jones, P. Sydney, Esq., M.D., Vice-Chancellor .. .. .	13
Anderson, H. C. L., Esq., M.A. .. .. .	16
Backhouse, His Honour Judge, M.A. .. .. .	17
Barton, the Right Hon. Sir Edmund, G.C.M.G., P.C., M.A., LL.D. ... .. .	5
Butler, Professor T., B.A. .. .. .	13
Cobbett, Professor Pitt, M.A., D.C.L. .. .. .	15
Cullen, the Hon. W. P., M.A., LL.D., M.L.C. .. .. .	11
David, Professor, B.A., F.R.S. .. .. .	13
†Griffith, the Right Hon. Sir Samuel, M.A. .. .. .	3
*Knox, Edward W., Esq. .. .. .	3
MacCallum, Professor M. W., M.A. ... .. .	15
O'Connor, the Hon. Mr. Justice R. E., M.A. .. .. .	4
†Oliver, His Honour Alexander, M.A. .. .. .	2
Renwick, the Hon. Sir Arthur, B.A., M.D., M.L.C. .. .. .	15
*Rogers, His Honour Judge, M.A., LL.B. .. .. .	10
*Russell, H. C., Esq., B.A., F.R.S., C.M.G. .. .. .	3
Simpson, the Hon. Mr. Justice A. H., M.A. .. .. .	15
Stephen, C. B., Esq., M.A. .. .. .	7
*Stuart, Professor T. P. Anderson, LL.D., M.D. .. .. .	6
*Teece, Richard, Esq., F.I.A. ... .. .	7

18. At the various meetings of Sub-Committees of the Senate, for Finance, Commercial Education, By-laws, Grounds and other matters, held during the year, the attendances of members were as follows:—The Chancellor (the Hon. Sir Normand MacLaurin), 26; the Vice-Chancellor (P. Sydney Jones, Esq., M.D.), 20; H. C. L. Anderson, Esq., 6; His Honour Judge Backhouse, 23; Professor Cobbett, 6; Professor David, 1; E. W. Knox, Esq., 1; Professor MacCallum, 4; Hon. Sir Arthur Renwick, 14; the Hon. Mr. Justice A. H. Simpson, 11; Professor Stuart, 1; R. Teece, Esq., 4.

\* Absent on leave. † Elected Fellow of Senate, July 30th. ‡ Deceased June 2nd.

*Vice-Chancellor.*

19. The annual election to the office of Vice-Cancellor, in the month of April, resulted in the unanimous election of P. Sydney Jones, Esq., M.D.

*The late Mr. Alexander Oliver.*

20. The Senate reports with great regret the death, on the 2nd of June, of Alexander Oliver, Esq., President of the Land Court, who had been a Fellow of the Senate for a period of twenty-five years. The following resolution was unanimously adopted by the Senate on the 13th of June :—

The Senate desires to place on record its sense of the great loss sustained by the University through the death of His Honour Alexander Oliver, Esq., M.A. One of the first matriculated Students of the University of Sydney, he had a brilliant academic career in this University and afterwards in the University of Oxford. As a Fellow of the Senate for a period of twenty-five years, he rendered important and valuable service to the University, while his services to the community of New South Wales in his official capacities have been no less valuable.

That a copy of the above resolution be forwarded to Mrs. Oliver, together with an expression of the sympathy of the Fellows of the Senate with her in her bereavement.

*Convocation.*

21. A convocation for the election of a Fellow in the room of the late Mr. Oliver was held in the Great Hall of the University on Saturday, July 30th, which resulted in the election, without opposition, of the Right Honourable Sir Samuel Walker Griffith, M.A., G.C.M.G., P.C., Chief Justice of the High Court of the Commonwealth of Australia.

*Peter Nicol Russell Engineering School.*

22. In the month of February the Senate received a communication from Sir William P. Manning, the Australian representative of Mr. (now Sir Peter) Russell, conveying an offer from that gentleman to further endow the P. N. Russell School of Engineering at the University to the amount of £50,000, making a total endowment, with his previous gift, of £100,000, on the condition that the Government of New South Wales should provide a sum of £25,000, to be expended

on the extension of the present buildings and equipment for the purposes of the School. The Government of New South Wales having very generously undertaken to comply with Sir Peter Russell's suggestion, the further endowment of £50,000 was thereupon transferred to the University; and in the month of May a communication was received from the Government formally announcing that the State Treasurer had made arrangements for the sum of £25,000 to be paid from revenue to the University for the proposed additional buildings and equipment.

In the Declaration of Trust Sir Peter Nicol Russell's second endowment is declared to be an extension of the first endowment, as well as to provide for more efficient instruction in the Department of Electrical Engineering, and for the foundation of two additional P. N. Russell Scholarships of £75 a year, tenable for four years, in the Department of Mechanical and Electrical Engineering. Three such Scholarships are now offered annually.

Sir Peter Russell's generous endowments of £100,000, and the erection of the promised buildings by the Government for the Department of Engineering, will place that Department upon a firm basis, and will be of lasting benefit to the people of New South Wales and the Commonwealth of Australia. It is the hope of the Senate that the example of Sir Peter Russell will be followed by others of our wealthy citizens in respect of other departments of the University.

*Staff Appointments, &c.*

23. The reorganisation of the Department of Engineering under the additional endowment was immediately undertaken by the Senate, acting on the advice of the Faculty of Science. New Lectureships were established in Mechanical Engineering and Electrical Engineering, and provision made for the appointment of two additional Demonstrators in those subjects and Instructors in Workshop Practice. The Lectureships in Mining and Architecture and Demonstratorship in Engineering Design and Drawing were placed upon a better footing, with a larger scope. The Lectureship in Mechanical Engineering was filled by the promotion of Mr. S. H. Barraclough, B.E. (Sydney), M.M.E. (Cornell), who previously

had acted as Lecturer in Mechanism and Applied Thermodynamics. For the Lectureship in Electrical Engineering, applications were invited in the United Kingdom and America, and the following gentlemen were requested to act as a committee of selection in London, to recommend to the Senate the names of the three most eligible candidates: The Acting Agent-General for New South Wales; Mr. Alexander Siemens, the president-elect of the Institution of Electrical Engineers; Mr. Cecil W. Darley; Mr. E. W. Knox; Mr. R. Teece; and Professor Liversidge. Of the three gentlemen who were specially recommended by the committee as suitable for the office, the Senate, in the month of November, selected and appointed Mr. E. Kilburn Scott, M.I.E.E., A.M.I.C.E. Mr. Kilburn Scott having had a thorough academic training, a wide range of practical work, as well as teaching experience as lecturer to the senior electrical engineering students at the Northampton Institute, Clerkenwell, is likely to prove himself a valuable addition to the University Staff. He will commence his duties on the 1st of March, 1905.

24. One of the Junior Demonstratorships in Engineering was filled in the month of July by the appointment of Mr. J. M. C. Corlette, B.E.

25. The following were appointed Honorary Demonstrators in Anatomy for the year 1904:—Messrs. Gordon Craig, M.B., Ch.M.; R. L. Davies, M.B., Ch.M.; Miss Mary Booth, M.B., Ch.M.; and Miss Kate Hogg, M.B., Ch.B.

26. Mr. H. Stanley Jevons, B.A., B.Sc., Assistant Lecturer in Mineralogy and Petrology and Demonstrator in Geology, resigned his office from the 31st of December, 1904, with the intention of returning to Europe to take up studies in another department of science. His resignation was received with regret. The position has been filled by the appointment of Mr. W. G. Woolnough, D.Sc. (Sydney), formerly Demonstrator in Geology in this University, and afterwards Lecturer in Geology in the University of Adelaide.

27. In the month of October, Mr. J. P. Hill, D.Sc. (Edinburgh), Demonstrator in Biology, was promoted to the office of Lecturer in Embryology, with an increase in emoluments, in consideration of his long service and of his valuable contributions to biological science.

28. Leave of absence for Lent and Trinity Terms of 1904 was granted to Professor J. A. Pollock, B.Sc., to enable him to visit some of the scientific laboratories in the United Kingdom and Continent of Europe. During his absence the duties of his Chair were carried out by Mr. G. H. Knibbs, who was appointed Acting-Professor of Physics for the term of Professor Pollock's absence.

29. Leave of absence for a period of twelve months was granted to Dr. R. Scot Skirving, Lecturer in Clinical Medicine, in consequence of ill-health. The duties of his lectureship were discharged by Messrs. A. E. Mills, M.B., Ch.M., and Cecil Purser, B.A., M.B., Ch.M.

30. Leave of absence for the year 1905 has been granted to Professor J. T. Wilson, M.B., after eighteen years' service. During Professor Wilson's absence, Mr. F. P. Sandes, M.D., the present Demonstrator in Anatomy, will discharge the duties of Acting-Professor of Anatomy, with the assistance of Mr. S. A. Smith, M.B., Ch.M., as Demonstrator, while Mr. J. F. Flashman, B.A., B.Sc., M.D., Pathologist to the Department of Lunacy, has been appointed to give a course of lectures and demonstrations on the anatomy of the central nervous organs.

31. Leave of absence for Lent and Trinity Terms of 1905 has been granted to Professor Pitt Cobbett, Professor of Law and Dean of the Faculty of Law. The duties of his office will be discharged by Professor D. G. McDougall, M.A., B.C.L., Professor of Law in the University of Tasmania, who has been appointed Acting-Professor of Law for the period of Professor Cobbett's absence. The Hon. W. P. Cullen, M.A., LL.D., has been appointed Acting Dean of the Faculty of Law for the same period.

32. Leave of absence for the year 1905 has been granted to Mr. E. R. Holme, B.A., Assistant Lecturer in English, who proposes to devote the period of his leave to further study of modern literature in the Universities of France and Germany. During his absence the duties of his lectureship will be discharged by Mr. H. S. Dettmann, B.A., B.C.L. (Oxford).

*School of Dentistry.*

33. During the year negotiations have been in progress between the University and the Council of the Dental Hospital of Sydney for the amalgamation with that hospital of the Dental Hospital which has been carried on by the University in connection with the Dental School

The University curriculum in Dentistry has been revised, and placed upon a footing of equality with the curriculum prescribed for dental students seeking to obtain a license to practice in the United Kingdom. In future the students will be required to pass the same entrance examination as that prescribed for students of medicine, and to devote their whole time to dental studies at the University and at the Dental Hospital for a period of four years, proceeding to the degree of Bachelor of Dental Surgery.

In lieu of the six lectureships in dental subjects which have existed up to the present, the following three lectureships on a more comprehensive basis have been established:—(1) Mechanical Dentistry, including crown and bridge work; (2) Clinical Dentistry, including orthodontia; (3) Surgical Dentistry, including deformities. Messrs. W. Septimus Hinder, D.D.S., N. V. Pockley, D.D.S., and R. Fairfax Reading, M.R.C.S., L.D.S., have been appointed to the three lectureships respectively.

Messrs. H. S. Du Vernet, D.D.S.; E. Deck, L.D.S., D.D.S.; and P. A. Ash, D.D.S., have been appointed Honorary Dental Surgeons of the Dental Hospital.

In the month of February, Mr. A. B. P. Dolan, L.D.S., was appointed Dental Superintendent at the University Dental Hospital for a period of twelve months. Mr. B. W. Neave, L.D.S., has been appointed to the same office for the year 1905.

*Commercial Education.*

34. In the month of September a communication was received from the Chamber of Commerce asking the Senate to give further consideration to the proposal brought forward in 1903 for the establishment of a Faculty or Department of Commerce. The matter was referred to a committee which, after consultation with the President of the Chamber of



Commerce and other gentlemen holding responsible positions in the commercial world, recommended for the adoption of the Senate a scheme for the holding of a Junior Commercial Examination for schoolboys, and the award of a University Commercial Certificate, to be given after attendance at courses of evening lectures proposed to be established. The subjects of the proposed lectures are:—Economics; Banking and Finance; Accounting; Commercial Law; Commercial Geography and History; Business Methods and Technique of Trade; Technology; English Composition, including Business Correspondence; with an optional Examination in French or German or other modern language.

The Professorial Board has been requested to report upon the matter and to draw up definite regulations for the lectures and examinations.

*Deans of Faculties.*

35. In consequence of the absence of Professor A. Liversidge, M.A., LL.D., F.R.S., Dean of the Faculty of Science, during the year 1904, Professor T. W. Edgeworth David, B.A., F.R.S., was appointed Acting-Dean of the Faculty of Science until the annual election of Deans of Faculties in the month of October. In that month the following elections were made for a period of two years:—Faculty of Arts, Professor M. W. MacCallum, M.A.; Faculty of Law, Professor Pitt Cobbett, D.C.L.; Faculty of Medicine, Professor Anderson Stuart, LL.D., M.D.; Faculty of Science, Professor T. W. Edgeworth David, B.A., F.R.S.

The by-law under which the Deans of Faculties are elected members of the Senate during their term of office was amended accordingly.

*Curriculum in Engineering.*

36. The curriculum in the various branches of Engineering has been under revision during the year.

In the Department of Mining and Metallurgy it has been decided to extend the course so as to cover four years instead of three, as it has been found difficult for the students to complete all the prescribed work in a period of three years.

In the Department of Mechanical and Electrical Engineering, arrangements have been made by which the students may

obtain six months' practical experience in an engineering workshop before attending the exercises of their fourth year of study.

The new arrangements will come into operation in March, 1905.

*Curriculum in Arts and Science.*

37. The Senate and the Professorial Board have been engaged for several months in a revision of the requirements of the Arts and Science curriculum, and the conditions of matriculation in the University, and of entrance to the various Faculties. A revised scheme has been adopted, the chief aim of which is to raise the standard of matriculation and of admission to the Faculty of Arts in order that certain elementary work which is considered to be below University standard work may be discontinued, and that students entering the University may be better equipped and more mature when they begin their University course.

The new curriculum, which is to be brought into force in 1907, allows students in the Faculty of Arts a greater option in their choice of subjects than is possible under the present system. The value of the degree of Bachelor of Arts will thus be enhanced as representing either wider or more thorough knowledge.

The revised matriculation examination will consist of two parts, the first part being similar in standard to the present matriculation examination for the Faculty of Arts, but with the addition of English.

In the second part, in which a higher standard is prescribed in each subject, namely, that of the senior public examination, the student will be required to pass in subjects appropriate to the course of study which he proposes to pursue in the University.

For the Faculty of Arts, two subjects at the higher standard, and for the Faculty of Law, three subjects at the higher standard will be required, Latin being compulsory in both cases.

Students in Science, Medicine, and Engineering will be required to pass in three subjects at the higher standard, one

of which must be French, German, Latin, or Greek, and in the case of candidates for an Engineering Degree, another must be higher Mathematics.

The amended curriculum for the Faculty of Arts requires the student to take four University courses in his first year and three in each of the second and third years; one course of Science with practical work being compulsory at some time during the curriculum.

Amended regulations for the award of Honours have also been made.

The by-laws for evening lectures have been remodelled in accordance with the revised curriculum for the Faculty of Arts.

*University Extension Board.*

38. The University Extension Board reports that the following courses of lectures were delivered during 1904:—

- At Goulburn.—Two courses—(i) A course of six lectures, by Mr. H. S. Jevons, B.A., B.Sc., on Work and Wages. The attendance was not large. (ii.) A course of three lectures, by Professor MacCallum, on English Literature. The attendance varied from 100 to 130.
- At Newcastle.—A course of six lectures on the Science and Art of Education, delivered by various lecturers. The average attendance was over 100.
- At Sydney.—(i.) A course of six lectures on Symbolism, by Mr. C. J. Brennan, M.A. The average attendance was 30.
- (ii.) A course of six lectures on History by Professor Wood. The average attendance was 70.
- (iii.) A course of six lectures on Italian Art, by the Rev. Andrew Harper, M.A., D.D. This course was organised in connection with the New South Wales Public Teachers' Association. The average attendance was 650.
- (iv.) A course of six lectures on Educational subjects by various lecturers; also organised in connection with the New South Wales Public Teachers' Association. The average attendance was 450.
- (v.) A course of ten lectures on the Economics of Trade and Industry, by Mr. H. S. Jevons, B.A., B.Sc., organised in conjunction with the Sydney Chamber of Commerce. The average attendance was 90.
- (vi.) A course of twelve lectures on Commercial History, by Messrs. R. C. Teece, M.A., LL.B., R. L. Nash, and H. Y. Braddon. Organised in conjunction with the Sydney Chamber of Commerce. The average attendance was 60.

39. In connection with the Queensland Extension Board, courses of lectures were given at the Brisbane Technical College and at the College of Pharmacy, under the authority of the Board ; also a course of ten lectures on Equity and the Practice of the Supreme Court, by Mr. H. H. Henchmann, M.A., LL.B., and a course of six lectures on Biology by various lecturers.

The following were elected in December to be members of the University Extension Board for the year 1905 :—

Members of the Senate :—Judge Backhouse, M.A.; Mr. H. C. L. Anderson, M.A.; the Hon. Dr. Cullen, Mr. R. Teece, F.I.A.

Members of the Teaching Staff :—Professors M. W. MacCallum, M.A.; T. W. E. David, B.A., F.R.S.; G. Arnold Wood, M.A.; Francis Anderson, M.A.; Pitt Cobbett, M.A., D.C.L.; W. J. Woodhouse, M.A.

Unofficial Members :—Mr. E. B. Taylor, Rev. Dr. Harper, Rev. Dr. Fordyce, Messrs. John Kent, G. S. Littlejohn, J. M. Taylor, R. F. Irvine.

Arrangements have been made for the University Extension Board in future years to be elected in the month of November.

#### *Women's College Council.*

40. In consequence of his election to the office of Vice-Chancellor of the University, Dr. P. Sydney Jones in the month of June resigned his office as an *ex-officio* member of the Council of the Women's College.

Mr. H. C. L. Anderson was elected for the remainder of Dr. Jones' term of office.

#### *University Library.*

41. Of the total appropriation of £1350 for the purchase of books and for binding, £300 was set aside for the expenses of binding, £100 as a special grant for the purchase of books relating to Mathematics, £50 for books of a general character, and the balance, £900, divided as in previous years amongst the various departments.

The total number of books in the University is 64,000 and the present arrangement by which they are stored in various rooms in the main building is the cause of much inconvenience, which will not be relieved until the completion of the Fisher Library.

*Rhodes Scholarship.*

42. In the month of April a communication was received from the trustees of the will of the late Mr. Cecil J. Rhodes, nominating the following as a Selection Committee for the appointment of the New South Wales Rhodes Scholar for the year 1904 :—

The Governor of New South Wales (in his private capacity), the Chief Justice of New South Wales, and the Senate of the University, acting on the recommendation of the Professorial Board.

The Senate nominated the Chancellor, the Vice-Chancellor and the Dean of the Faculty of Arts as its representatives on the Committee of Selection.

Applications for the Scholarship were invited by advertisement, and 11 persons applied.

The Committee selected and nominated as the most suitable candidate, Mr. W. A. Barton, B.A.

*Macleay Fellowships.*

43. Early in 1904 the Linnean Society of New South Wales became entitled to a sum of £35,000 by the will of the late Hon. Sir William Macleay for the foundation of Macleay Fellowships. These are open to competition amongst Graduates in Science of the University of Sydney, and the holder of a Fellowship is required to pursue original researches in some branch of natural science to the satisfaction of the Council of the Linnean Society. The Fellowships are of the value of £400 per annum, and may be renewed annually so long as the Council of the Linnean Society is satisfied that the Fellow is doing satisfactory work. Arrangements have been made by the Linnean Society for the appointment of the first Macleay Fellow early in 1905.

*Summer Courses.*

44. Courses of lectures and practical work in Chemistry and Geology have been organised to be held in the first fortnight of January, 1905, for the benefit of school teachers. The courses will be conducted by Acting-Professor Schofield and Professor T. W. E. David respectively, with the assistance

of Demonstrators. Similar courses were offered in Biology, Physics and Physiology, but a sufficient number of candidates did not present themselves to justify the holding of the classes.

*Benefactions.*

45. The Senate has to acknowledge the receipt of the following benefactions, in addition to Sir Peter Russell's gift, which has been referred to elsewhere, and a large number of donations to the University Library :—

- (i.) The Kambala Prize, given by members of the Kambala Girls' Union : A sum of £250, the interest to be used as a prize for the best girl matriculant from a private school.
- (ii.) The Royal Commissioners for the Exhibition of 1851 have offered to the University for the year 1905 the nomination to a Science Research Scholarship of the annual value of £150.

*Accounts.*

46. The annual statement of receipts and expenditure and statements showing the position of the various funds of the University at 31st of December, duly certified by the Auditor, David Fell, Esq., C.A.A., are appended to this report.

H. E. BARFF,  
Registrar.

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# ACCOUNTS.

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Mr.

## RECEIPTS.

**Audited and found correct.**

**DAVID FELL, Auditor.**

## RECEIPTS.

**Sydney, 6th January, 1905.—Audited and found correct.**

**DAVID FELL, Auditor.**



## SYDNEY FOR THE YEAR ENDING 31st DECEMBER, 1904.

		Cr.	
GENERAL ACCOUNT.			
EXPENDITURE.			
		£	s. d.
Paid Salaries ... ..	21,404	10	6
„ Examiners' Fees ... ..	834	13	0
		21,739	3 6
„ Printing & Stationery, including University Calendar and Advertising ... ..	796	17	5
„ Repairs and Alterations, Fittings, and Furniture... ..	238	10	0
„ Fuel and Lighting ... ..	158	9	9
„ Fire Insurance Premiums ... ..	211	3	8
„ Annuities' Premiums ... ..	711	0	0
„ Rent ... ..	443	0	0
„ Supervision and Attendance at Examinations ... ..	51	3	9
„ Water and Sewerage Rates ... ..	393	8	5
„ Cleaning ... ..	82	2	9
„ Uniforms ... ..	15	7	0
„ Postage and Duty Stamps and Bank Charges ... ..	88	1	10
„ Expenses of Appointment of Mechanical Instructor in Dentistry ... ..	10	10	0
„ Grant to University Rifle Corps ... ..	10	0	0
„ Miscellaneous Expenses ... ..	133	3	4
		3,292	17 11
„ Scientific Apparatus, and Maintenance of Scientific Departments ... ..		1,999	4 3
„ Microscopes... ..		114	17 0
„ Grounds—Asphalting Paths, etc. ... ..		133	5 9
„ Tuning Organ ... ..		25	0 0
„ University Prize and Medals ... ..		16	16 0
„ University Extension Lectures Courses ... ..	240	9	9
„ Less Fees received ... ..	192	7	11
		48	1 10
Balance in Commercial Banking Co. of Sydney, 31st Dec., 1904		1,796	0 3
		£29,215	6 6

ROBERT A. DALLEN, ACCOUNTANT.

## PUBLIC EXAMINATIONS ACCOUNT.

	EXPENDITURE.	£	s. d.
Balance due Commercial Banking Co. of Sydney, 31st December, 1903...	443	11	11
Paid Examiners' Fees and all other expenses in connection with the Public Examinations, and Grants towards Expenses of Local Centres ...	1,446	11	10
	£1,890	3	9

ROBERT A. DALLEN, ACCOUNTANT.

## RECEIPTS AND EXPENDITURE OF THE UNIVERSITY OF

Br.

## PRIVATE FOUNDATIONS ACCOUNT.

## REVENUE ACCOUNT.

## RECEIPTS.

	£	s.	d.	£	s.	d.
Received from the English Trustees of the Dalton Estate, balance of interest on investments after paying annuities for Woolley Scholarship ... ..				78	9	9
from Sir Peter Nicoll Russell, for the further endowment of the P. N. Russell School of Engineering ...				50,000	0	0
from Kambala Girls' Union, for the foundation of a Kambala Prize ... ..				250	0	0
„ from the following for Prizes :—						
Professor G. Arnold Wood, M.A. ... ..	5	0	0			
„ T. W. Edgeworth David, B.A., F.R.S. ... ..	10	0	0			
„ M. W. MacCallum, M.A. ... ..	15	0	0			
„ F. Anderson, M.A. ... ..	20	0	0			
„ W. A. Haswell, M.A., D.Sc., F.R.S. ... ..	3	3	0			
„ Pitt Cobbett, M.A., D.C.L. ... ..	10	0	0			
				68	3	0
Received Income from Investments on account of the following Foundations :—						
Levey Scholarship ... ..	43	16	1			
Barker Scholarships ... ..	312	8	9			
Dean-Thomson Scholarships ... ..	155	2	6			
Cooper Scholarships ... ..	318	1	4			
Lithgow Scholarship ... ..	97	7	11			
Renwick Scholarship ... ..	41	1	0			
Bowman Cameron Scholarship ... ..	41	3	11			
George Allen Scholarship ... ..	36	9	5			
Freemasons' Scholarship ... ..	50	15	0			
James Aitken Scholarship ... ..	53	14	10			
G. Wigram Allen Scholarship ... ..	71	10	4			
Caird Scholarship ... ..	76	15	7			
James King of Irrawang Travelling Scholarship ... ..	138	16	3			
Woolley Travelling Scholarship ... ..	41	6	4			
John Harris Scholarship ... ..	46	0	0			
Council of Education Scholarship ... ..	23	15	1			
Frazer Scholarship ... ..	81	11	7			
Garton Scholarships ... ..	97	11	6			
George and Matilda Harris Scholarship ... ..	74	15	10			
Salting Exhibition ... ..	41	19	10			
Struth Exhibition ... ..	52	4	3			
J. B. Watt Exhibitions ... ..	141	15	1			
Horner Exhibition ... ..	9	1	11			
Maurice Alexander Bursary ... ..	47	15	2			
Levey and Alexander Bursary ... ..	50	12	11			
Ernest Manson Frazer Bursary ... ..	66	19	6			
John Ewan Frazer Bursary ... ..	62	4	8			
W. C. Wentworth Bursary No. 1 ... ..	41	6	8			
„ „ No. 2 ... ..	43	0	2			
„ „ No. 3 ... ..	48	9	7			
Burdekin Bursary ... ..	46	1	1			
Hunter-Baillie Bursaries ... ..	108	6	6			
Thomas Walker Bursaries ... ..	173	5	2			
Badham Bursary ... ..	39	19	1			
Henry Wait Bursary ... ..	43	10	11			
Duncan Bursary ... ..	37	15	4			
Wentworth Prize Medal ... ..	25	10	8			
Nicholson Medal ... ..	29	18	8			
Belmore Medal ... ..	28	10	7			
Carried forward ... ..	£2,940	10	2	£50,391	12	9



## RECEIPTS AND EXPENDITURE OF THE UNIVERSITY OF

Br.

PRIVATE FOUNDATIONS ACCOUNT—*Continued.*

## REVENUE ACCOUNT.

RECEIPTS.					£	s.	d.	£	s.	d.
<i>Brought forward</i>					2,940	10	2	50,391	12	9
Received Income from Investments on account of the following										
Foundations:—										
John Fairfax Prizes	...	...	...	...	23	2	0			
John West Prize	...	...	...	...	9	1	10			
Norbert Quirk Prize	...	...	...	...	6	14	10			
Smith Prize	...	...	...	...	4	16	4			
Slade Prizes	...	...	...	...	13	5	6			
Grahame Prize Medal	...	...	...	...	4	1	4			
Collie Prize	...	...	...	...	4	14	2			
Beauchamp Prize	...	...	...	...	28	12	10			
Kambala Prize	...	...	...	...	2	18	0			
Wentworth Fellowship	...	...	...	...	102	17	9			
Hovell Lectureship	...	...	...	...	146	5	10			
J. G. Raphael Foundation	...	...	...	...	4	12	0			
Fisher Estate	...	...	...	...	1,779	15	6			
Macleay Curatorship	...	...	...	...	199	4	5			
P. N. Russell Endowment	...	...	...	...	2,716	2	10			
"	"	"	"	"	80	13	1			
								8,067	8	5
" from P. N. Russell Endowment for P. N. Russell Endowment Sinking Fund										
								140	8	0
								<u>£58,599</u>	<u>9</u>	<u>2</u>

Sydney, 26th January, 1905.—Audited and found correct.

DAVID FELL, Auditor.

## SYDNEY FOR THE YEAR ENDING 31st DECEMBER, 1904.

PRIVATE FOUNDATIONS ACCOUNT—Continued.						Cr.	
REVENUE ACCOUNT.							
EXPENDITURE.							
<i>Brought forward</i> ...						£	s. d.
Paid Scholarships, Bursaries, Prizes, etc., as follows:—						£	s. d.
Haswell Prize ...						2,578	6 10
						401	6 7
						3	2 0
						2,578	8 10
Paid to General Account towards Salaries:—							
Hovell Lectureship ....						248	18 1
Macleay Curatorship...						276	4 9
						525	2 10
„ on account of Fisher Library:—							
Librarians' Salaries ...						871	15 0
Purchase of Books, Binding, etc. ...						1,441	0 1
						1,812	15 1
„ on account of P. N. Russell Endowment for Salaries, etc. (as per annexed statement) ...						2,256	13 6
„ Investment Account for investment ...						50,785	0 0
Balance in Commercial Banking Co. of Sydney, 31st Dec., 1904						240	2 4
						£58,599	9 2

ROBERT A. DALLEN, ACCOUNTANT.

## REPORT OF THE

## RECEIPTS AND EXPENDITURE OF THE UNIVERSITY OF

Dr.

## INVESTMENT ACCOUNT.

							£	s.	d.
Received from Revenue Account for Investment ...	..	...	...	...	...	...	50,785	0	0

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Sydney, 26th January, 1905.—Audited and found correct.

DAVID FELL, Auditor.

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## P. N. RUSSELL ENDOWMENT.

*(Included in Private Foundations Account.)*

								£	s.	d.
Received from Sir Peter Russell	..	...	...	...	...	...	...	50,000	0	0
„ Interest on Funded Stock	...	...	...	...	...	...	...	2,716	2	10

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£52,716 2 10

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## SINKING FUND.

Received from Endowment Fund...	...	...	...	...	...	...	...	140	8	0
„ Interest on Bank Deposit, etc.	...	...	...	...	...	...	...	80	13	1

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£221 1 1

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Sydney, 26th January, 1905.—Audited and found correct.

DAVID FELL, Auditor.

SYDNEY FOR THE YEAR ENDING 31<sup>ST</sup> DECEMBER, 1904.

INVESTMENT ACCOUNT.						Cr:		
						£	s.	d.
Paid Investments—Funded Stock	...	...	...	...	...	49,985	0	0
Bank Deposits	...	...	...	...	...	800	0	0
						<u>50,785 0 0</u>		

ROBERT A. DALLEN, ACCOUNTANT.

P. N. RUSSELL ENDOWMENT.												
<i>(Included in Private Foundations Account.)</i>												
										£	s.	d.
Paid Scholarships	...	...	...	...	...	...	...	...	...	377	0	0
„ Salaries	...	...	...	...	...	...	...	...	...	1,900	0	0
„ Stationery and Miscellaneous Charges	...	...	...	...	...	...	...	...	...	16	5	6
„ Scientific Apparatus...	...	...	...	...	...	...	...	...	...	200	0	0
„ eighth instalment towards Sinking Fund, to defray premium on Funded Stock	...	...	...	...	...	...	...	...	...	140	8	0
„ Investment in Funded Stock	...	...	...	...	...	...	...	...	...	49,985	0	0
										<u>£52,618 13 6</u>		

SINKING FUND.												
Paid Investment—Bank Deposit	...	...	...	...	...	...	...	...	...	200	0	0
										<u>£200 0 0</u>		

ROBERT A. DALLEN, ACCOUNTANT.

# RECEIPTS AND EXPENDITURE OF THE UNIVERSITY

Dr.

## CHALLIS FUND ACCOUNT.

## REVENUE ACCOUNT.

RECEIPTS.						£	s.	d.	£	s.	d.
Received Interest on Investments:—											
Government Stock	...	...	...	...	...	2,407	0	0			
Mortgages	...	...	...	...	...	5,858	5	0			
Deposits	...	...	...	...	...	983	0	8			
Rents of Properties	...	...	...	...	...	1,041	6	0			
									9,784	11	3
,, from Australian Trustees, interest of guarantee fund, after payment of Commission...									917	7	4
									10,701	18	7
Less transfer to Challis Fund Special Reserve Fund									1,479	7	10
									£9,222	10	9

## SPECIAL RESERVE ACCOUNT.

						£	s.	d.	£	s.	d.
Received Interest on Investments:—											
Government Stock	...	...	...	...	...	68	19	6			
Mortgages	...	...	...	...	...	608	3	0			
Bank Deposit	...	...	...	...	...	30	0	0			
Rents of Properties	...	...	...	...	...	224	14	0			
									921	16	6
,, from Challis Fund, Interest over 4 per cent. on Investments for providing quinquennial increments to Professors, and for equalising income from Investments									1,479	7	10
,, from Challis Fund (balance of 1903)									604	17	6
Balance due Commercial Banking Co. of Sydney, 31st Dec., 1904									549	4	5
									£8,555	6	8

Sydney, 26th January, 1905.—Audited and found correct.

DAVID FELL, Auditor.



## OF SYDNEY FOR THE YEAR ENDING 31st DECEMBER, 1904.

Cr.

## CHALLIS FUND ACCOUNT.

## REVENUE ACCOUNT.

## EXPENDITURE.

	£	s.	d.
Balance due Commercial Banking Co. of Sydney, 31st December, 1903 ..	987	0	9
Paid Salaries ... ..	7,100	0	0
„ Maintenance of Challis Tomb ... ..	4	10	0
„ Miscellaneous Charges ... ..	0	11	0
„ General Account towards Expenses of Administration ... ..	500	0	0
„ Transfer to Reserve Account (balance of 1903) ... ..	604	17	6
Balance in Commercial Banking Co. of Sydney, 31st December, 1904 ...	75	11	6

£9,222 10 9

## SPECIAL RESERVE ACCOUNT.

	£	s.	d.
Balance due Commercial Banking Co. of Sydney, 31st December, 1903...	155	6	8
Paid Salaries—Quinquennial Increases... ..	1,900	0	0
„ Investment—Bank Deposit... ..	1,500	0	0

£3,555 6 8

ROBERT A. DALLEN, ACCOUNTANT.

**PRIVATE FOUNDATIONS, ORIGINAL ENDOWMENTS AND  
CREDIT BALANCES AT 31st DECEMBER, 1904.**

NAME OF FOUNDATION.	Original Amount of Endowment.			Ledger Account Cr. Balance.		
	£	s.	d.	£	s.	d.
Levey Scholarship ... ..	500	0	0	1,044	7	1
Barker Scholarships ... ..	1,000	0	0	3,377	19	3
Deas-Thomson Scholarships ... ..	1,000	0	0	2,566	7	9
Wentworth Prize Medal ... ..	200	0	0	625	18	7
Cooper Scholarships ... ..	1,000	0	0	3,485	16	1
Salting Exhibition ... ..	500	0	0	898	6	6
Wentworth Fellowship ... ..	445	0	0	2,586	11	6
Lithgow Scholarship ... ..	1,000	0	0	2,457	16	9
Nicholson Medal ... ..	200	0	0	731	3	9
Belmore Medal ... ..	300	0	0	732	4	2
John Fairfax Prizes ... ..	500	0	0	533	14	0
Maurice Alexander Bursary ... ..	1,000	0	0	1,159	11	7
Levey and Alexander Bursary ... ..	1,000	0	0	1,184	11	2
John West Prize ... ..	200	0	0	214	16	11
Ernest Manson Frazer Bursary ... ..	1,250	0	0	1,665	12	6
John Ewan Frazer Bursary ... ..	1,250	0	0	1,547	3	1
W. C. Wentworth Bursary, No. 1 ... ..	2,500	0	0	1,000	0	0
W. C. Wentworth Bursary, No. 2 ... ..				1,000	0	0
W. C. Wentworth Bursary, No. 3 ... ..				1,163	13	4
Burdekin Bursary ... ..	1,000	0	0	1,111	13	10
Hunter-Baillie Bursaries ... ..	2,000	0	0	2,640	17	6
J. B. Watt Exhibitions ... ..	3,000	0	0	3,929	17	2
Renwick Scholarship ... ..	1,000	0	0	1,121	5	2
Bowman-Cameron Scholarship ... ..	1,000	0	0	958	11	11
Hovell Lectureship ... ..	6,000	0	0	6,080	11	9
George Allen Scholarship ... ..	1,000	0	0	1,069	18	7
Freemasons' Scholarship ... ..	1,000	0	0	1,274	15	2
J. G. Raphael Foundation ... ..	43	0	4	109	13	11
James Aitken Scholarship ... ..	1,000	0	0	1,257	17	2
Thomas Walker Bursaries ... ..	5,000	0	0	5,208	7	9
G. Wigram Allen Scholarship ... ..	1,000	0	0	1,718	13	9
Struth Exhibition ... ..	1,000	0	0	1,236	3	7
Fisher Estate ... ..	30,000	0	0	41,838	3	7
Norbert Quirk Prize ... ..	143	12	6	160	5	4
Smith Prize ... ..	100	0	0	109	15	10
Badham Bursary ... ..	1,000	0	0	950	2	5
Slade Prizes ... ..	250	0	0	316	5	5
Caird Scholarship ... ..	1,000	0	0	1,752	1	9
James King of Irrawang Scholarship ... ..	4,000	0	0	4,460	12	4
" " " Bursary ... ..	881	0	0	783	14	6
Macleay Curatorship ... ..	6,000	0	0	5,951	16	7
John Harris Scholarship ... ..	1,000	0	0	1,057	3	10
Horner Exhibition ... ..	200	0	0	214	15	6
Council of Education Scholarship ... ..	290	10	1	573	10	6
Frazer Scholarship ... ..	2,000	0	0	2,402	14	8
Grahame Prize Medal ... ..	100	0	0	94	15	0
Collie Prize ... ..	100	0	0	110	6	2
Woolley Scholarship ... ..	900	7	8	961	7	6
P. N. Russell Fund ... ..	100,000	0	0	97,452	12	0
" " " Sinking Fund ... ..	-	-	-	1,455	14	10
Garton Scholarships ... ..	2,050	0	0	2,828	12	5
Henry Wait Bursary ... ..	1,000	0	0	1,026	7	8
George and Matilda Harris Scholarship ... ..	1,700	0	0	1,761	10	7
Duncan Bursary ... ..	808	19	6	911	6	7
Beauchamp Prize ... ..	600	0	0	721	3	2
Kambala Prize ... ..	250	0	0	252	18	0
Private Annual Prizes in Trust ... ..	32	19	2	32	19	2
Challis Fund ... ..	224,362	10	0	229,600	11	6
" " " Special Reserve Fund ... ..	-	-	-	21,880	15	7
	£416,657	19	3	£474,736	6	8

ROBERT A. DALLEN, Accountant.

## UNIVERSITY CLUBS, ETC.

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### SYDNEY UNIVERSITY UNION.

The object of the Union, which was founded in 1874, is the promotion of the mental culture and fellowship of its members by means of Debates, Lectures, Reading of Papers, etc. The meetings are held at the University every Friday evening at 8 p.m. Past and Present Members meet at the Annual Dinner, which is held during Lent Term. The Professors, Lecturers, and Examiners of the Sydney University are *ex officio* Honorary Members. All other members of the University, or student attending lectures, or fellow or councillor or student of an affiliated college, may become a member of the Union by paying his subscription to the Treasurer. Except in the case of members of other Universities, the formality of an election is dispensed with. Subscription, 2s. 6d. per annum. Life Membership is obtained on the payment of four annual subscriptions. The Union year now begins in Trinity Term.

#### OFFICE BEARERS FOR 1904-5.

PRESIDENT—Professor M. W. MacCallum, M.A.

VICE-PRESIDENT—H. M. Green, B.A.

HON. SECRETARIES—P. R. Watts, B.A., P. H. Rogers.

HON. TREASURER—J. Paterson, B.A.

COMMITTEE—N. J. Gough, B.A., C. St. L. Willis, R. S. Bonney, B.A., H. L. Thompson, G. C. Whitney.

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### UNIVERSITY OF SYDNEY MEDICAL SOCIETY.

The objects of this Society, which was founded in 1885, are the intellectual and social improvement of its members, by lectures, essays, and discussions, in any branch of Medical Science, and by any other means calculated to advance the objects of the Society.

The Annual General Meeting is held early in Lent Term. Ordinary general meetings are held twice in Lent Term, three times in Trinity Term, and once in Michaelmas Term, in the Harveian Theatre. At the last meeting in Trinity Term an address is delivered by some eminent physician or surgeon on some subject of special interest.

All teachers in the Faculty of Medicine are honorary members *ex officio*. All Students of Medicine, or qualified Medical Practitioners, whose qualifications are recognised by the University of Sydney, are eligible for ordinary membership.

The transactions of the Society, together with other matters of Medical interest, are published in the Society's Journal.

OFFICE BEARERS FOR 1905.

PRESIDENT—S. A. Smith, M.B., Ch.M.

VICE-PRESIDENTS—St. J. W. Dansey, M.B., Ch.M., T. P. Connolly, M.B., Ch.M., T. P. Parkinson, M.B., Ch.M., G. A. Buchanan, M.B., Ch.M., L. Cowlshaw.

HON. SECRETARY—A. J. Aspinall.

HON. TREASURER—E. A. Brearley.

HON. LIBRARIAN—W. T. Quaife.

HON. AUDITORS—T. P. Connolly, M.B., Ch.M., and A. P. Gillespie.

EDITORIAL COMMITTEE FOR SOCIETY'S JOURNAL—J. M. McEncroe, M.B., Ch.M. Assistant Editors: T. P. Parkinson, C. St. L. Willis.

COUNCIL—Five members, one from each year in Medicine.

SYDNEY UNIVERSITY SPORTS UNION.

The Union has been formed by the amalgamation of the existing Football, Cricket, Boat, Athletic, Tennis and Baseball Clubs. Such other Clubs as may from time to time be approved by the Committee shall be admitted.

Membership.—Any person who shall have matriculated according to the by-laws of the University of Sydney, and shall be proceeding to a degree at such University, and any graduate of the said or any other recognised University, shall be eligible for membership. Any undergraduate who has attended lectures for at least six (6) consecutive terms shall be entitled to continue his membership, and nothing in this rule shall affect any member at the date of the passing thereof (April 6th, 1903).

Annual Subscription.—The annual subscription to the Sports Union for full active members shall be £2 2s. per annum, and for honorary members £1 1s. Ladies who comply with the provisions of the above rule as to membership may become members on payment of an annual subscription of £1 1s. Any person eligible for membership may become a life member on payment of £15 15s.; a life honorary member on payment of £10 10s. A life member of any constituent club at the time of amalgamation shall continue a life member of that club, and shall be made a life member of the Sports Union on payment of an additional subscription to be fixed in each case by the Committee. Any member who shall have paid the aggregate sum of 25 guineas in annual subscriptions shall forthwith become entitled to life membership.

The Oval.—The Oval is controlled and managed by a Ground Committee of five (5), appointed annually by the General Committee.

OFFICE BEARERS FOR 1905.

PATRON—The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., Chancellor.

PRESIDENT—H. F. Maxwell, B.A.

**VICE-PRESIDENTS**—His Honour Judge Backhouse, M.A., H. E. Barff, M.A., H. M. Faithfull, M.A., E. W. Knox, Professor Pollock, D.Sc., Senator J. T. Walker, C. H. Helsham, B.A., J. S. Cargill, B.A., H. Marks, B.A., I. G. Mackay, B.A.

**HON. TREASURERS**—H. M. Stephen, B.A., LL.B., A. G. M. Pitt, B.A., LL.B., J. W. Hoets, G. V. Portus.

**HON. SECRETARY**—O. A. Ireland.

**GENERAL COMMITTEE**—H. Marks, B.A., S. H. Harris, A. D. Fisher, B.A., N. R. Johnson, B. R. French, J. G. W. Powell, B.A., A. G. de L. Arnold, LL.B., E. A. Brearley, B.A., M. L. MacCallum, C. H. Maher, H. G. Allen, V. O. Stacy, G. V. Portus, E. E. I. Body.

**GROUNDS COMMITTEE**—J. S. Cargill, B.A. (Chairman), C. A. Sinclair, B.A., LL.B., E. E. I. Body, N. C. Barker, G. V. Portus (Secretary).

#### SYDNEY UNIVERSITY BOAT CLUB.

All members of the Sports Union are members of the Boat Club. The boat shed of the Club is now situated in Blackwattle Bay.

#### OFFICE BEARERS FOR 1905.

**PATRON**—His Honour Judge Backhouse, M.A.

**PRESIDENT**—W. T. Coyle, B.A.

**VICE-PRESIDENTS**—C. H. Helsham, B.A., Professor Pollock, D.Sc., R. R. P. Hickson, A. G. Purves, H. O. Lethbridge, M.B., Ch.M., E. M. Mitchell, B.A., LL.B., W. H. Palmer, H. Kendall, A. Consett Stephen, A. MacCormick, M.D.

**CAPTAIN**—C. H. Cropper.

**VICE-CAPTAIN**—F. Coen.

**HON. SECRETARY**—F. O. Stokes.

**HON. TREASURER**—E. A. Brearley, B.A.

**COMMITTEE**—O. A. Ireland, J. W. Heaslop, F. Craig, L. R. Woodcock, B.E., A. Morrison, K. Smith.

**TRUSTEES**—H. E. Barff, M.A., Robert Smith, M.A.

**DELEGATES TO N.S.W. R.A.**—C. H. Cropper, W. T. Coyle, F. Craig.

**DELEGATES TO SPORTS UNION**—A. G. de L. Arnold, E. A. Brearley, B.A. (*ex officio*).

**HON. MEDICAL OFFICER**—J. Coen, M.B.

#### SYDNEY UNIVERSITY CRICKET CLUB.

This Club was established in the year 1865. All members of the Sports Union are Members of the Cricket Club. The Senate has granted to the Club the use of that portion of the University grounds known as the "Oval." A considerable sum of money has been spent upon this ground, and a handsome pavilion has been erected upon it. Practice is carried on daily (Wednesdays excepted) from October to April (inclusive) on the Oval.

The last match against Melbourne University Cricket Club, the 25th of the series, was played in Sydney, and won by an innings and 243 runs.

OFFICE BEARERS FOR 1905.

PRESIDENT—H. M. Faithfull, M.A.

VICE-PRESIDENTS—H. E. Barff, M.A., Thos. Buckland, John Harris, E. W. Knox, Theo. Powell, R. Teece, H. M. Stephen, B.A., LL.B., J. W. Woodburn, B.E., H. E. Manning, B.A., LL.B., F. D. Kent, M.A.

HON. SECRETARY—J. S. Harris.

ASSISTANT HON. SECRETARY 2ND XI.—V. O. Stacy.

„ „ „ 3RD XI.—G. G. Nathan.

„ „ „ VETERANS—A. G. Purves.

„ „ „ WEDNESDAY TEAM—W. F. Matthews.

HON. TREASURER—S. H. Harris.

DELEGATES TO S.U.S.U.—H. Marks, B.A., and S. H. Harris.

DELEGATES TO N.S.W.C.A.—H. M. Stephen, B.A., LL.B., C. A. Sinclair, B.A., LL.B.

DELEGATES TO C.S.C.A.—A. G. Purves, C. A. Sinclair, B.A., LL.B.

COMMITTEE—Dr. H. S. Stacy, H. Marks, B.A., P. S. Jones, M.B., I. G. Mackay, B.A., V. S. Futter, E. F. Waddy, B.A., F. C. Rogers, A. D. Fisher, B.A.

SELECTION COMMITTEES—1st XI.: E. F. Waddy, A. Verge, D. C. Close, A. D. Fisher, B.A., G. T. Balcombe. 2nd XI.: E. E. I. Body, F. C. Rogers, G. G. Nathan. 3rd XI.: C. P. Sapsford, V. O. Stacy, R. G. Waddy. VETERANS: A. G. Purves, H. Marks, B.A., H. L. Maitland, M.B. WEDNESDAY TEAM: G. T. Balcombe, F. C. Rogers, W. F. Matthews.

SYDNEY UNIVERSITY TENNIS CLUB.

The Club was established in September, 1885. All members of the Sports Union are also members of the Tennis Club.

OFFICE BEARERS FOR 1905.

PATRON—Professor Wood, M.A.

PRESIDENT—G. W. Waddell, M.A., LL.D.

VICE-PRESIDENTS—Professor Pollock, D.Sc., Professor Carslaw, D.Sc., H. E. Barff, M.A., Dr. H. C. Hinder, H. F. Maxwell, B.A., G. G. Sharp, M.B., E. O. Pockley, M.B., A. G. M. Pitt, B.A.

HON. SECRETARY—M. L. MacCallum.

HON. TREASURER—C. W. Maher.

DELEGATES TO N.S.W.L.T.A.—J. N. Griffiths, M. L. MacCallum.

GENERAL COMMITTEE—E. N. Docker, E. D. L. Jones, J. N. Griffiths, C. N. Pitt, C. A. Verge, A. W. Walker.

## SYDNEY UNIVERSITY ATHLETIC CLUB.

## OFFICE BEARERS FOR 1905.

**PATRON**—The Chancellor.

**PRESIDENT**—Professor Anderson, M.A.

**VICE-PRESIDENTS**—Senator J. T. Walker, H. E. Barff, M.A., Professor Pollock, D.Sc., F. T. Perkins, M.A., R. Coombes, Professor David, F.R.S., W. B. Dight, M.B., Professor Carslaw, M.A.

**HON. SECRETARIES**—N. C. Barker and S. D. Webb.

**HON. TREASURER**—B. R. French.

**GENERAL COMMITTEE**—Messrs. J. W. G. Powell, H. G. Allen, C. W. Roe, V. S. Futter, E. B. Riley, W. F. Matthews, N. Ducker, R. Waddy.

**DELEGATES TO N.S.W.A.A.A.**—N. C. Barker, C. W. Roe, B. R. French, J. B. Lane.

**DELEGATES TO S.U. SPORTS UNION**—J. W. G. Powell, B. R. French.

## SYDNEY UNIVERSITY ENGINEERING SOCIETY.

The object of the Society is to promote the welfare of the Department of Engineering by bringing into closer association the Graduates and Undergraduates in Engineering, by the reading of papers and the delivery of lectures on professional subjects, and by such other similar means as may be approved of by the Council of the Society. Membership is open to all students in the Faculty of Science, whether matriculated or not, also to members of the teaching staff and graduates in Science or Engineering. The subscription is 10s. 6d. per annum (including proceedings), payable before the beginning of May. The Society offers an annual prize of the value of £2 2s. for the best paper on original research, work and design contributed by an undergraduate during the year.

## OFFICE BEARERS FOR 1905.

**PRESIDENT**—J. W. Roberts, B.E., Assoc. M. Inst. C.E.

**VICE-PRESIDENTS**—A. Jarman, A.R.S.M., G. A. Waterhouse, B.Sc., B.E., F.E.S., W. R. Beaver, B.E., R. J. Boyd, B.E.

**HON. TREASURER**—H. S. Mort, B.Sc., Stud. Inst. C.E.

**ASSISTANT HON. TREASURER**—J. Atkinson.

**HON. SECRETARY**—A. J. Gibson, Assoc. M. Inst. C.E.

**HON. ASSISTANT SECRETARY**—J. P. Tivey, B.A., Stud. Inst. C.E.

**COUNCIL**—J. J. C. Bradfield, M.E., Assoc. M. Inst. C.E. (*ex officio*), J. N. C. MacTaggart, B.E., Assoc. M. Inst. C.E. (*ex officio*), T. P. Strickland, B.E., M.Sc. (*ex officio*), R. F. Barker, B.E., J. M. C. Corlette, B.E., R. G. Cowlshaw, J. M. Bridge, J. G. Burnell, H. Swain, L. V. Waterhouse.

## SYDNEY UNIVERSITY MEN'S CHRISTIAN UNION.

The Sydney University Christian Union was founded on May 19th, 1896.

This Union is a branch of the Australasian Student Christian Union, which in its turn is a branch of the World's Students Christian Federation. This federation is composed of 1750 associations, with an aggregate membership of over 100,000. The federation has made all the student movements of the world better acquainted with each other by establishing among them practical means of communication, such as world's conferences, inter-visitation, correspondence, and interchange of publications.

Its objects may be gathered from Article II. of the Constitution:—

“To strengthen the bonds of union among Christian students; to influence fellow-students to become followers of Christ; to deepen the spiritual life of students; to promote Christian work, especially by and for students; to lead students as they go forth from the University to place their lives where they will be most useful in extending the Kingdom of Christ.”

Lectures are held on Thursday, at 4 p.m. Bible Classes are arranged weekly for the different faculties. Classes are also arranged fortnightly for studying the progress which Christianity is making throughout the world.

The Union is in possession of a library, which contains many standard works on the religious problems of the day.

Membership is open to all members of the University. Subscription, 2s. 6d. per annum.

Until 1903 the Union included both the men's and women's branches; but at the annual meeting of October, 1904, these two branches were separated to form two distinct self-governing unions, each with its own constitution. The annual meeting of the Union is held in the second week of Third Term, at which the executive officers are elected to serve for one year.

## OFFICE BEARERS FOR 1905.

PRESIDENT—H. J. Meldrum.

VICE-PRESIDENT—A. F. Teece.

RECORDING SECRETARY—G. V. Portus.

CORRESPONDING SECRETARY—N. McKie.

TREASURER—W. M. Nimmo.

CHAIRMEN OF COMMITTEES—R. E. McClelland (Membership), T. L. O'Reilly (Handbook), C. Northcote (Bible Study), H. O. Chapman (Missionary), L. C. Morris (Lads' Club), M. Archdall (“Intercollegian”).

## SYDNEY UNIVERSITY WOMEN'S CHRISTIAN UNION.

## OFFICE BEARERS FOR 1905.

PRESIDENT—Florence M. Holden, B.A.

VICE-PRESIDENT—Constance A. Bellhouse.

CORRESPONDING SECRETARY—Aphra F. Scroder.

RECORDING SECRETARY—Laura M. Martin.

TREASURER—Lavinia Clouston.



UNIVERSITY WOMEN'S BOAT CLUB.

OFFICE BEARERS FOR 1905.

PRESIDENT—Miss Fidler, B.A.

VICE-PRESIDENTS—Mrs. G. A. Wood, B.A., Miss Constance M. Rutherford, B.A.

HON. SECRETARY—Miss Eleanor Watson.

HON. TREASURER—Miss Nina B. Brierley.

CAPTAIN—Miss Dickenson.

COMMITTEE—Misses Constance Binney, Ida Bourne, Mabel Murray-Prior, Margaret E. David and Grace Jones.

UNIVERSITY AND CITY LEAGUE.

OFFICE BEARERS FOR 1905.

PRESIDENT—Professor J. T. Wilson, M.B., Ch.M.

VICE-PRESIDENT—R. C. Teece, M.A.

HON. SECRETARIES—J. N. Griffiths, H. S. Nicholas, B.A.

HON. TREASURER—N. Walker.

COMMITTEE—A. H. Austin, E. V. Barling, M.B., Ch.M., D. D. Dey, J. G. W. Hill, B.A., O. Latham, E. Ludowici, M.B., Ch.M., R. N. Robson, B.A., E. H. M. Stephen, J. R. Stewart, F. S. Stuckey, B.Sc., R. N. Teece, M.A., G. H. Wilson, B.A., J. Young, B.A.

SYDNEY UNIVERSITY SCOUTS RIFLE CORPS.

The Club was formed in connection with the Sydney University Scouts. The object of the Rifle Club is to promote rifle shooting amongst the members of the Sydney University Scouts. Only members of the Sydney University Scouts (active and hon.) are eligible for membership to the Rifle Club. The subscription is 2s. 6d. per term, in advance. The membership roll totals 75. There are three shoots (6 ranges) per term.

OFFICE BEARERS FOR 1905

PATRON—The Hon. Sir Normand MacLaurin, M.A., LL.D., M.D.

PRESIDENT—Major R. C. Simpson, commanding Sydney University Scouts.

VICE-PRESIDENTS—Major-General Finn, Brig.-General Gordon, Major MacLagan, Prof. MacCallum, Prof. David, Capt. Wilson, Col. Campbell, Major Smail, Lieutenants Barraclough, Clouston, Smail, Martyn, E. M. Mitchell, Dr. A. Anderson, Major Legge, Col. Mort, Major Luscombe, Col. Bartlett, Col. Lyster, Col. Stanley, Capt. Flashman, H. E. Barff, M.A., Prof. Pollock, Prof. Liversidge, Prof. Woodhouse, E. Kilburn Scott, Lt. Gibson, H. Brooks.

**CAPTAIN**—Lieutenant Martyn.

**HON. SECRETARY**—Sergeant Bedford.

**ASSISTANT HON. SECRETARY**—Private Mills.

**HON. TREASURER**—R. S. M. Corlette.

**COMMITTEE**—Senior Colour-Sergeant Foley, Sergeant Mort, Sergeant Poate, Corporal Garnock, Corporal Bridge, Lance-corporal Mackenzie, Private Patterson.

#### SYDNEY UNIVERSITY LAW SOCIETY.

This Society was formed in Lent Term, 1902. The following persons are eligible for membership on election by the Committee, and payment of an annual subscription of 6s. :—(1) Any Graduate in Law; (2) any Graduate of the University who is a Barrister or Attorney of the Supreme Court of New South Wales or Queensland, or any Articled Clerk or Student-at-Law in New South Wales; (3) any person attending lectures in the Faculty of Law. The rooms of the Society are situated in Selborne Chambers, Phillip Street, City.

#### OFFICE BEARERS FOR 1905.

**PATRON**—The Professor of Law.

**PRESIDENT**—E. M. Mitchell, B.A., LL.B.

**VICE-PRESIDENTS**—G. E. Rich, M.A., F. Leverrier, B.A., B.Sc., D. Ferguson, B.A., J. B. Peden, B.A., LL.B., G. W. Waddell, M.A., LL.D.

**COMMITTEE**—H. M. Green, B.A., D. Wilson, M.A., H. V. Jaques, B.A., R. Murray-Prior, B.A., N. de H. Rowland, B.A.

**HON. SECRETARIES**—G. H. Wilson, B.A. LL.B., E. T. Real, B.A.

**HON. TREASURER**—H. E. Manning, B.A.

#### SYDNEY UNIVERSITY PHILOSOPHICAL SOCIETY.

This Society was inaugurated on November 12th, 1901, when a meeting of Graduates and Undergraduates was held to draw up a constitution and elect officers. The object of the Society is to promote interest in the study of Philosophy. To further this object meetings are held monthly, at which papers are read and discussed. The Inaugural Address was delivered by Professor Anderson, M.A., in December, 1901, on "Philosophy and Modern Life."

#### OFFICE BEARERS FOR 1905.

**PATRON**—Professor F. Anderson, M.A.

**PRESIDENT**—C. Brennan, M.A.

**VICE-PRESIDENTS**—Rev. M. Scott Fletcher, M.A., C. Nicholas, B.A., K. ff. Swanwick, B.A.

**COMMITTEE**—Rev. E. N. Merrington, M.A., R. B. Reynolds, M.A., N. G. S. Pilcher, B.A., LL.B., T. E. Roseby, M.A., Miss E. I. Taylor, M.A., Miss M. Fry, B.A.

**TREASURER**—A. M. Levick.

**SECRETARY**—J. A. Ferguson, B.A.

## UNIVERSITY FOOTBALL CLUB.

This Club was formed in 1863. Matches are played every Saturday and Wednesday during the season, which lasts from April till September. All members of the Sports Union are members of the Football Club.

## OFFICE BEARERS FOR 1905.

PATRON—The Hon. Sir Normand MacLaurin, M.L.C., M.D., LL.D.

PRESIDENT—H. D. Wood, B.A., LL.B.

VICE-PRESIDENTS—H. E. Barff, M.A., H. P. Blaney, M.B., H. Marks, B.A., G. P. Barbour, M.A., T. P. Connolly, M.B., Ch.M., J. J. Garry, C. S. Browne, M.B.

GENERAL COMMITTEE—J. Manning, C. A. Sinclair, B.A., J. Coen, D. C. Close, A. D. Fisher, B.A.

SELECTION COMMITTEE—1st XV.: J. Manning, A. D. Fisher, A. Verge. 2nd XV.: J. Coen, D. C. Close, E. E. I. Body. 3rd XV.: R. J. N. Whiteman, J. Smail.

HON. TREASURER—A. Verge.

DELEGATE TO SPORTS UNION—J. Manning.

DELEGATES TO METROPOLITAN UNION—J. Manning, G. P. Barbour, M.A., and T. B. Clouston.

DELEGATE TO BOROUGH COMMITTEE—J. Smail.

REPRESENTATIVE ON COMMITTEE OF METROPOLITAN UNION—T. B. Clouston.

HON. SECRETARIES—First XV.: J. W. G. Powell, B.A. Second XV.: A. J. Aspinall. Third XV.: R. J. N. Whiteman, J. Smail.

## UNIVERSITY BASEBALL CLUB.

Founded, 1904.

## OFFICE BEARERS FOR 1905.

PRESIDENT—H. E. Barff, M.A.

VICE-PRESIDENTS—Professor Pollock, Professor Welsh, Professor Liversidge, Professor Anderson, Dr. R. Pope, Messrs. G. P. Barbour, G. N. Frith, C. A. Buchanan, D. J. Thomas.

TREASURER—H. G. Allen.

SECRETARY—V. O. Stacy.

GENERAL COMMITTEE—F. C. Rogers, H. C. E. Donovan, H. G. Allen, R. Harvey, L. G. R. Poate, R. Candlish, J. S. Harris, and the Treasurer and Secretary.

DELEGATES TO S.U.S.U.—V. O. Stacy and H. G. Allen.

DELEGATES TO N.S.W.B.A.—H. C. E. Donovan and V. O. Stacy.

SELECTION COMMITTEE—H. C. E. Donovan, F. C. Rogers, J. S. Harris.

## UNIVERSITY CLUBS, ETC.

## LADIES' TENNIS CLUB.

## OFFICE BEARERS FOR 1905.

PATRONESS—Lady MacLaurin.

PRESIDENT—Mrs. MacCallum.

VICE-PRESIDENTS—Mrs. Wood, Miss Fidler, B.A., Mrs. Haswell, Mrs. David.

HON. SECRETARY—Andrée Adelaide Kaeppel.

HON. TREASURER—Ruby E. Ward.

COMMITTEE—Laurie MacFarlane, Florence L. Parsons, Margaret E. David, Lavinia Clouston, Gladys H. Marks, Ailsie Talbot.

## UNIVERSITY WOMEN'S SOCIETY.

The object of this Society is, as far as lies in its power, to help those requiring and deserving help. All women members of the University of Sydney are eligible for membership. Honorary members may be admitted by consent of a general meeting. Subscription, 1s. 6d. per Term.

FOUNDERESS—The Countess of Jersey.

## OFFICE BEARERS FOR 1905.

PATRONESS—Lady Rawson.

PRESIDENT—Lady Manning.

VICE-PRESIDENTS—Mrs. Hey Sharp, Mrs. Wilson, Mrs. Harper, Miss Newell, Mrs. Welsh, Miss Fidler, B.A., Miss Duncan.

HON. SECRETARY—Miss Ida Henry, B.A.

HON. ASSISTANT UNDERGRADUATES' SECRETARY—Miss Julie Fitzhardinge.

HON. TREASURER—Miss J. Skillman, B.A.

REPRESENTATIVES—Newington Asylum, Miss S. O. Brennan, M.A. B.Sc.; Girls' Club, Miss Macdonald, M.A.

COMMITTEE—Miss Fell, B.A., Miss E. E. Bourne, Miss M. Watson, Miss Harriott, B.A., Miss Slack, B.A., Miss E. Lyons, B.A., Miss F. Cohen.

## SYDNEY UNIVERSITY WOMEN'S ASSOCIATION.

This Association was founded in May, 1892, with the aim of bringing all women Graduates and Undergraduates together from time to time for social and intellectual purposes, and of taking cognizance of all matters affecting their well-being.

## OFFICE BEARERS FOR 1905.

PRESIDENT—Mrs. Wood, B.A.

HON. SECRETARY—Miss D. K. Murray-Prior, B.A.

HON. TREASURER—Miss Nina B. Brierley.

COMMITTEE—Miss R. Murray-Prior, Miss I. M. Fidler, B.A., Dr. Kate Hogg, Dr. Agnes Bennett, Miss D. K. Murray-Prior, B.A. (*ex officio*), Miss Margaret E. David, Miss Fanny M. Austin.

DELEGATE TO THE NATIONAL COUNCIL OF WOMEN—Miss MacInnes, B.A.

SYDNEY UNIVERSITY UNDERGRADUATES' ASSOCIATION.

OFFICE BEARERS FOR 1905.

PRESIDENT—J. G. W. Hill, B.A.

VICE-PRESIDENTS—J. W. G. Powell, B.A., H. Oxenham, C. H. Cropper.

HON. SECRETARIES—J. P. Tivey, B.A., E. A. Brearley, B.A.

HON. TREASURER—R. Prevost.

COMMITTEE—H. J. R. Clayton, M. L. MacCallum, G. V. Portus, P. H. Rogers, B.A., P. R. Watts, B.A., A. MacInnes, B.A., A. J. Aspinall, H. G. Carter, A. H. Teece, G. C. Byrne, H. S. Utz, C. J. Weedon, K. Smith, W. A. Matthews, J. Punch, J. Atkinson, G. Howatson.

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SYDNEY UNIVERSITY WOMEN-UNDERGRADUATES' ASSOCIATION.

OFFICE BEARERS FOR 1905.

PRESIDENT—Florence M. Holden.

VICE-PRESIDENTS—Berthe R. Ward, Julie G. Fitzhardinge.

HON. SECRETARY—Florence L. Parsons.

HON. TREASURER—Aphra F. Scroder.

COMMITTEE—Ruth Murray-Prior, Mabel L. Dunlop, Fanny Cohen, Elsie J. Dalyell, Sophia R. Child.

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SYDNEY UNIVERSITY EVENING STUDENTS' ASSOCIATION.

This Association was founded in April, 1900, with the object of promoting social relations among Evening Students, past and present.

OFFICE BEARERS FOR 1905.

PRESIDENT—J. Spence, B.A.

VICE-PRESIDENTS—W. J. Binns, M.A., W. L. Artlett, B.A., F. Jordan, B.A.

HON. SECRETARY—S. C. Smith.

HON. TREASURER—R. G. Newton.

REPRESENTATIVES.—Third Year: R. G. Newton. Second Year: A. J. Reynolds. First Year: K. Binns. Law: S. W. Ebsworth.

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# \*EXAMINATION PAPERS.

DECEMBER, 1904.

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## FACULTY OF ARTS.

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### FIRST YEAR EXAMINATION.

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ENGLISH.

PASS.

(a) SHAKESPEARE.

1. Explain fully—

(a) He is not only plagued for her sin,  
But God hath made her sin and her the plague  
On this removed issue, plagued for her  
And with her plague: her sin his injury  
Her injury the beadle to her sin,  
All punish'd in the person of this child  
And all for her.

(b) Now he (Death) feasts, mousing the flesh of men  
In undetermined differences of kings.

(c) This sway of motion, this Commodity,  
Makes it take head from all indifferency . . . .  
And this same bias, this Commodity  
Clapp'd on the outward eye of fickle France  
Hath drawn him from his own determined aid.

(d) The truth thou art unsure  
To swear, swears only not to be forsworn.

(e) To guard a title that was rich before . . . .  
Is wasteful and ridiculous excess.

(f) All this thou seest is but a clod,  
And module of confounded royalty.

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\* The time allowed for each paper is three hours, except where otherwise stated.

ii.

FIRST YEAR IN ARTS.

2. Explain the grammatical peculiarities of the following—

(a) Do, child, go to it grandam, child.

(b) (This) harm within itself so heinous is  
As it makes harmful all that speak of it.

(c) France, thou may'st hold a serpent by the tongue . .  
A fasting tiger safer by the tooth  
Than keep in peace that hand which thou dost hold.

And the metrical peculiarities of the following—

(a) Into this city's bosom.

I from the north. Our thunder from the south.

(b) Lame, foolish, crooked, swart, prodigious.

(c) Canonized and worshipp'd as a saint.

3. Explain the significance of the following passages for the interpretation of the following characters—

(a) *For John*. This might have been prevented and made whole

With very easy arguments of love,  
Which now the manage of two kingdoms must  
With fearful bloody issue arbitrate.

(b) *For Constance*. If thou, that bid'st me be content, were grim,

Ugly and slanderous to thy mother's womb . . . .  
I would not care. I then would be content,  
For then I should not love thee.

(c) *For Arthur*. O, this will make my mother die with grief.

(d) *For Lewis*. Come, come ; for thou shalt thrust thy hand  
as deep

Into the purse of rich prosperity  
As Lewis himself.

4. Sketch the character of Philip Faulconbridge in its development.

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(b) CHAUCER.

1. Explain fully—

(a) Of his stature he was of evene lengthe  
And wonderly deliver, and greet of strengthe.

(b) This ilke monk leet olde thinges pace  
And held after the newe world the space.



- (c) He knew the tavernes wel in every toun,  
And everich hostiler and tappestere,  
Bet than a lazar or a beggestere.
  - (d) Noght o word spak he more than was nede,  
And that was seyde in forme and reverence,  
And short and quick, and ful of hy sentence.
  - (e) His table dormant in his halle alway  
Stood redy covered al the longe day.
  - (f) Wel coude he stelen corn, and tollen thryes,  
And yet he hadde a thombe of gold pardie.
2. Note the peculiarities of Chaucerian metre in the following—
- (a) This worthy limitour was cleped Huberd.  
A Marchant was ther with a forked berd.
  - (b) For to delen with no swich poraille.
  - (c) His herberwe and his mone, his lodmenage.  
And of grammar in—
  - (a) Sore weep she if oon of hem were deed.
  - (b) But whoso coude in other thing him grope,  
Thanne hadde he spent all his philosophye.
  - (c) By my fader soule.
3. Give a description of the Prioress and of the Reve.
4. "The happy idea of a pilgrimage enabled Chaucer to give much wholesomeness and variety to his collection of stories and their setting."
- Discuss this.

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(c) LANGUAGE.

1. Explain what is meant by the terms Isolating, Agglutinative, and Inflectional as applied to language. State and discuss the current view of the connection of the stages that these words describe.
2. Compare the effects of the Danish and of the Norman Conquest on English.
3. Discuss the advantages and disadvantages of a mixed vocabulary.
4. Explain, by a diagram or otherwise, how the new words that come into English may be classified.

LATIN PROSE COMPOSITION AND UNSEEN TRANSLATION.  
PASS.

1. Translate into Latin—

- (a) It was generally believed that if the Romans threatened an attack the city would be forthwith surrendered.
- (b) Do you not remember that formerly no plebeian was allowed to stand for the consulship?
- (c) Let me know whether you are here as a friend or as an enemy.
- (d) Hasdrubal's experienced eye at once detected what had happened. He noticed the signs of a long march in the worn arms and the thin horses of troops which he had not seen before, and noted the increased numbers. Yet he could not discover that the camps were enlarged, or more numerous. As before, there was the consul's camp and the praetor's. But he had had experience of Roman discipline in Spain, and he noticed that in the consul's camp two trumpets sounded to arms instead of one; and he knew that this indicated the presence of the other consul. What if it also indicated that Hannibal had been conquered and perhaps slain? Or that his letter had been intercepted by the Romans? Overcome with anxiety, he ordered instant preparations for breaking up the camp and marching away by night. In the confusion of the darkness his guides deserted, and when day broke he found himself still on the south bank of the Metaurus.

2. Translate into English—

Marcellus, postquam in castra reditum est, contionem adeo saevam atque acerbam apud milites habuit, ut proelio per diem totum infeliciter tolerato tristior iis irati ducis oratio esset. "Dis immortalibus laudes gratesque" inquit "ago, quod victor hostis, cum tanto pavore incidentibus vobis in vallum portasque, non ipsa castra est aggressus; deseruissetis profecto eodem terrore castra, quo omisistis pugnam. Qui pavor hic, qui terror, quæ repente, qui et cum quibus pugnaretis, oblivio animos cepit? Nempe iidem sunt hi hostes, quos vincendo et victos sequendo priorem aetatem absumpsistis, quibus dies noctesque fugientibus per hos dies institistis, quos

levibus proeliis fatigastis, quos hesterno die nec iter facere nec castra ponere passi estis. Omitto ea, quibus gloriari potestis; cuius et ipsius pudere ac paenitere vos oportet, referam. Nempe aequis manibus hesterno die diremistis pugnam. Quid haec nox, quid hic dies attulit? Vestrae iis copiae imminutae sunt an illorum auctae? Non equidem mihi cum exercitu meo loqui videor nec cum Romanis militibus; corpora tantum atque arma eadem sunt. An, si eosdem animos habuissetis, terga vestra vidisset hostis? signa alicui manipulo aut cohorti ademisset? Adhuc caesis legionibus Romanis gloriabatur; vos illi hodierno die primum fugati exercitus dedistis decus."

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LATIN AUTHORS.

PASS.

1. Translate into English, extracts from Virgil, Georgics.
2. Translate, with brief comments on the matter of (a), and on the matter and grammar of (b)—
  - (a) ergo inter sese paribus concurrere telis  
Romanas acies iterum videre Philippi;  
nec fuit indignum superis, bis sanguine nostro  
Emathiam et latos Haemi pinguescere campos.
  - (b) quin ipsae stupuere domus atque intima Leti  
Tartara caeruleosque implexae crinibus angues  
Eumenides, tenuitque inhians tria Cerberus ora,  
atque Ixionii vento rota constitit orbis.
3. Translate into English, extracts from Livy, Book I.
4. Translate, with brief comments—
  - (a) Creato dictatore primum Romae, postquam praeferri secures viderunt, magnus plebem metus incessit; neque enim, ut in consulibus, alterius auxilium, neque provocatio erat.
  - (b) Sunt, qui duos tantum in Sacro monte creatos tribunos esse dicant ibique sacratam legem latam.

## GREEK—(FIRST YEAR PASS.)

## PROSE COMPOSITION AND UNSEEN TRANSLATION.

## 1. Translate into English—

Ἀπασαι δ' ἤδη οὔσαι ἅμα ἐν τῇ Κνίδῳ αἱ τῶν Πελοποννησίων νῆες ἐπεσκευάζοντό τε εἴ τί ἔδει, καὶ πρὸς τὸν Τισσαφέρην (παρεγένετο γάρ) λόγους ἐποιοῦντο οἱ ἔνδεκα ἄνδρες τῶν Λακεδαιμονίων περὶ τε τῶν ἤδη πεπραγμένων, εἴ τι μὴ ἤρεσκεν αὐτοῖς, καὶ περὶ τοῦ μέλλοντος πολέμου, ὅτῳ τρόπῳ ἄριστα καὶ ξυμφορώτατα ἀμφοτέροισι πολεμήσεται. μάλιστα δὲ ὁ Λίχας ἐσκόπει τὰ ποιούμενα, καὶ τὰς σπονδὰς οὐδετέρας, οὔτε τὰς Χαλκιδέως οὔτε τὰς Θηριμένους, ἔφη καλῶς ξυγκεῖσθαι, ἀλλὰ δεινὸν εἶναι εἰ χώρας ὅσης βασιλεὺς καὶ οἱ πρόγονοι ἦρξαν πρότερον, ταύτης καὶ νῦν ἀξιώσει κρατεῖν· ἐνεῖναι γάρ καὶ νήσους ἀπάσας πάλιν δουλεῖν καὶ Θεσσαλίαν καὶ Λοκροὺς καὶ τὰ μέχρι Βοιωτῶν· καὶ αὐτ' ἐλευθερίας ἂν Μηδικὴν ἀρχὴν τοῖς Ἑλλησι τοὺς Λακεδαιμονίους περιθεῖναι. ἑτέρας οὖν ἐκέλευε βελτίους σπένδεσθαι ξυνηήκας.

## 2. Translate into Greek—

When Xerxes was preparing to invade Greece, envoys came from Sparta and Athens to Gelon, the tyrant of Syracuse,<sup>1</sup> who was famous at that time for his greatness and power, and begged him to come to the assistance of his kinsmen, the Greeks, against the barbarians. Gelon replied that he would gladly do so, if he might have sole command of the allied armament. But this offer was rejected, for the Spartans would not allow any one to share the leadership of the land army, while the Athenians would not agree to yield the command by sea to a Sicilian.<sup>2</sup> Then Gelon with a laugh rejoined: "It seems you have generals enough, but not soldiers for the war."

<sup>1</sup> Συράκουσαι.      <sup>2</sup> Σικελιώτης.

## GREEK—(FIRST YEAR PASS.)

## AUTHORS.

1. Translate into English, an extract from Homer, *Odyssey*, Book I.

2. Comment upon the words underlined in the following passage, without translating—

τὸν δ' ἡμείβετ' ἔπειτα θεὰ γλαυκῶπις Ἀθήνη.  
 “μή μ' ἔτι νῦν κατέρυκε, λilαιόμενόν περ ὁδοῖο.  
 δῶρον δ' ὅττι κέ μοι δοῦναι φίλον ἦτορ ἀνώγῃ,  
αὐτὶς ἀνερχομένῳ δόμεναι οἰκόνδε φέρεσθαι,  
καὶ μάλα καλὸν ἐλῶν. σοὶ δ' ἄξιον ἔσται ἀμοιβῆς.”  
 ἡ μὲν ἄρ' ὥς εἰποῦσ' ἀπέβη γλαυκῶπις Ἀθήνη,  
 ὄρνις δ' ὥς ἀνοπαῖα διέπτατο· τῇ δ' ἐνὶ θυμῷ  
 θῆκε μένος καὶ θάρσος, ὑπέμνησέν τέ ἐ πατρὸς  
 μᾶλλον ἔτ' ἢ τὸ πάροιθεν. ὁ δὲ φρεσὶν ἦσι νοήσας  
 θάμβησεν κατὰ θυμόν· οἶσατο γὰρ θεὸν εἶναι.  
 αὐτίκα δὲ μνηστήρας ἐπύχκετο ἰσόθεος φῶς.

3. Translate into English, an extract from Andocides, De Mysteriis.

4. Explain the words underlined in the following passages, without translating—

(a) ἡ μὲν εἰσαγγελία αὐτῷ ὧ ἄνδρες τοιαύτη· ἀπογράφει δὲ τὰ  
 ὀνόματα τῶν ἀνδρῶν ὧν ἔφη γινῶναι, δύο καὶ τετταράκοντα,  
 πρῶτους μὲν Μαντίθεον καὶ Ἀψεφίωνα, βουλευτὰς ὄντας καὶ  
καθημένους ἔνδον.

(b) κατηγόρησαν δέ μου καὶ περὶ τῆς ἱκετηρίας, ὡς καταθείην ἐγὼ  
 ἐν τῷ Ἐλευσινίῳ, νόμος δ' εἶη πάτριος, ὅς ἂν θῇ ἱκετηρίαν  
μυστηρίοις, τεθνάναι.

5. Translate into English, (a) an extract from Sophocles, Antigone.

(b) ἀλλ' εὖ γέ τοι κάτισθι μὴ πολλοῖς ἔτι  
τρόχους ἀμιλλητήρας ἡλίου τελῶν,  
ἐν οἷσι τῶν σῶν αὐτὸς ἐκ σπλάγχνων ἕνα  
νέκυν νεκρῶν ἀμοιβὸν ἀντιδοῖς ἔσει,  
ἂνθ' ὧν ἔχεις μὲν τῶν ἄνω βαλὼν κάτω,  
ψυχὴν τ' ἀτίμως ἐν τάφῳ κατώκισας,  
ἔχεις δὲ τῶν κάτωθεν ἐνθάδ' αὖ θεῶν  
ἄμοιρον, ἀκτέριστον, ἀνόσιον νέκυν.  
ὧν οὔτε σοὶ μέτεστιν οὔτε τοῖς ἄνω  
θεοῖσιν, ἀλλ' ἐκ σοῦ βιάζονται τάδε.

τούτων σε λωβητῆρες ὑστεροφθόροι  
λοχῶσιν Ἄιδου καὶ θεῶν Ἑρινύες  
 ἐν τοῖσιν αὐτοῖς τοῖσδε ληφθῆναι κακοῖς.

Give short notes on the words underlined in passage 5. (b).

6. What blemishes do you discover in the *Antigone*, and how would you explain their existence?
7. Discuss the character of *either* Creon *or* Antigone.

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### GREEK HISTORY--(FIRST YEAR PASS.)

ONE HOUR AND A HALF.

*Not more than FIVE questions are to be attempted.*

1. Trace the gradual change in the position assumed by Athens in the Confederacy of Delos.
2. In what way did the Asiatic Greeks first come in contact with the Persians?
3. What did the Greeks mean by tyranny? Give some account of the government of either Corinth or Athens or Sicyon by tyrants.
4. What were the terms of the Peace of Nicias? What effect had it upon the position of Sparta in the Peloponnese?
5. What were the real, and what the alleged, causes of the Peloponnesian War?
6. Draw an outline map of Sicily, inserting the chief Greek colonies, and indicating which of them were Dorian and which Ionian.
7. Give a brief account of the main evils, social and political, which it was the object of Solon to combat, and of the measures which he introduced to that end.
8. Briefly describe the Spartan constitution.
9. Say briefly what you know of the following:—Arginusæ, Peace of Callias, Agariste, Pheidon, Ithome, Scione, Coroneia.

GEOMETRY.

PASS.

TWO HOURS.

1. Angles standing on the same arc of a circle, or on equal arcs of the same circle, are equal to one another. Prove this theorem, and hence shew that any equilateral figure inscribed in a circle must also be equiangular
- 2 Draw a tangent to a circle from a given external point.  
PT touches a circle of radius 5 inches at the point P. TP is of length 12 inches. As P moves round the circle, shew that T moves round a concentric circle, and find its radius.
3. In a given circle inscribe a triangle equiangular with a given triangle. Find the side of an equilateral triangle inscribed in a circle of radius 1 foot.
4. Inscribe a regular hexagon in a given circle.  
If ABCDEF is this hexagon, and AC, CE, EA are joined, prove that the triangle AEC is equilateral and of area half that of the hexagon.
5. AB and XY are two parallel straight lines, C and Z are their middle points. Shew that AX, CZ, and BY meet in a point if produced.
6. Triangles which are equiangular with each other are similar.
7. If the bisector AD of the angle A of a triangle ABC cuts the opposite side in D, shew that  $AB:AC=BD:DC$ .  
If O is the middle point of BC, shew that  $OD=\frac{a}{2} \cdot \frac{b-c}{b+c}$ .
8. The diagonal AC of a square ABCD is divided into four equal parts by the three points E, F, and G; with centre F and radius FE or FG a circle is described, and with centres C and A, and radii CG and AE respectively, quadrants of circles in the square. What fraction of the area of the square lies outside these circles?

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ALGEBRA.

PASS.

TWO HOURS.

1. Solve the equations  
(i.)  $(x-9)(x-7)(x-5)(x-1)=(x-2)(x-4)(x-6)(x-10)$

x.

# FIRST YEAR IN ARTS.

(ii.)  $\sqrt{6(x-1)} - \sqrt{3x+4} = \sqrt{x-6}$

and determine, by substitution, whether the values you obtain satisfy these equations.

2. Solve the equations

(i.) 
$$\left. \begin{aligned} 2x - y &= 3 \\ x^2 + y^2 + 2x - y &= 8 \end{aligned} \right\}$$

(ii.) 
$$\left. \begin{aligned} 2x^2 - 5xy - 3y^2 &= 9 \\ 3x^2 - 4xy - 15y^2 &= 17 \end{aligned} \right\}$$

3. Find the value of

$$a^{\frac{1}{2}} \times b^{-\frac{3}{2}} \times c^{-4} - \sqrt{a-b^2}$$
  
when  $a=125$ ,  $b=16$ ,  $c=\frac{1}{4}$ .

4. Extract the square root of

$4 - \sqrt{15}.$

Prove that

$$\frac{\sqrt{10} - \sqrt{4 - \sqrt{15}}}{\sqrt{10} - \sqrt{4 + \sqrt{15}}} = 4 + \sqrt{15}.$$

5. If  $\frac{x}{a} = \frac{y}{b} = \frac{z}{c}$ , prove that each ratio

$$= \sqrt{\frac{ax+by+cz}{a^2+b^2+c^2} \times \frac{x^2+y^2+z^2}{ax-by+cz}}$$

6. Prove that the logarithms to the base ten of two numbers differing only in the position of the decimal point, will differ by an integer.

Find the value of

(i.)  $(7632)^{\frac{1}{2}} \times (7.632)^{-\frac{1}{2}}$

(ii.)  $(7632)^{\frac{1}{2}} + (7.632)^{-\frac{1}{2}}$

7. Find the sum of  $n$  terms of an A.P. of which the first term and the common difference are given.

If  $S$  is the sum of all the odd numbers, and  $S'$  the sum of all the even numbers amongst the numbers 300 to 400, both inclusive, prove that

$$\frac{S}{S'} = \frac{50}{51}$$



# DECEMBER EXAMINATION.

xi.

8. If a series of numbers is in G. P, prove that their squares are also in G. P.

Find 3 numbers in G. P such that their sum is  $3\frac{1}{2}$ , and the sum of their squares is  $5\frac{1}{2}$ .

## TRIGONOMETRY.

PASS.

TWO HOURS.

1. Define the cosine of an angle in such a way that your definition will apply to angles of any magnitude.

Find geometrically  $\cos 30^\circ$ , and *write down* the values of  $\cos 150^\circ$ ,  $\cos 210^\circ$ , and  $\cos 330^\circ$ .

2. A kite is flying at the end of a string 120 yards long, and the direction of the string makes an angle of  $37^\circ 15'$  with the vertical : find the height of the kite.

3. At a point 280 feet from the foot of a church tower the elevation of the top of the tower is observed to be  $20^\circ$ . From the same point the elevation of the top of the spire which surmounts the tower is  $34^\circ$ . Find the height of each.

4. Prove the following identities—

$$(1 + \sin A + \cos A)^2 = 2(1 + \sin A)(1 + \cos A).$$

$$\sin A(1 + \tan A) + \cos A(1 + \cot A) = \sec A + \operatorname{cosec} A.$$

5. Discuss geometrically the nature of the change in the tangent as the angle increases from  $0^\circ$  to  $360^\circ$ .

Construct the angle between  $180^\circ$  and  $270^\circ$  whose tangent is  $2\frac{1}{2}$ , and *write down* the values of its sine and cosine.

What is the size of this angle ?

6. Prove by projection the formulæ for  $\cos(A+B)$  and  $\sin(A+B)$ . Deduce the values of  $\sin 2A$  and  $\cos 2A$  in terms of  $\sin A$  and  $\cos A$ .

7. Find the expression for  $\tan \frac{A}{2}$  in terms of the sides of the

triangle, and explain its use in the solution of triangles.

Find the largest angle in the triangle whose sides are 5090, 6837, and 7019 feet.

8. Prove that the sines of the angles of a triangle are proportional to the lengths of the opposite sides.

From a ship sailing  $27^\circ$  south of west a lighthouse is observed to bear  $37^\circ$  west of north, and when the ship has sailed 1 mile the lighthouse bears  $25^\circ$  east of north.

Find the distance of the lighthouse from the ship at the second observation.

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### JUNIOR FRENCH I.

#### PROSE COMPOSITION AND UNSEEN TRANSLATION.

##### PASS.

1. Translate into French—

It was in the year 1750 that Voltaire left the great capital, which he was not to see again till, after the lapse of near thirty years, he returned, bowed down by extreme old age, to die in the midst of a splendid and ghastly triumph. His reception in Prussia was such as might well have elated a less vain and excitable mind. He wrote to his friends at Paris, that the kindness and the attention with which he had been welcomed surpassed description, that the King was the most amiable of men, that Potsdam was the paradise of philosophers. He was created chamberlain, and received, together with his gold key, the cross of an order, and a patent ensuring to him a pension of eight hundred pounds a year for life. A hundred and sixty pounds a year were promised to his niece if she survived him. The royal cooks and coachmen were put at his disposal. He was lodged in the same apartments in which Saxe had lived, when, at the height of power and glory, he visited Prussia. Frederic, indeed, stooped for a time even to use the language of adulation. He pressed to his lips the meagre hand of the little grinning skeleton, whom he regarded as the dispenser of immortal renown. He would add, he said, to the titles which he owed to his ancestors and his sword, another title, derived from his last and proudest acquisition. His style should run thus:—Frederic, King of Prussia, Margrave of Brandenburg, Sovereign Duke of Silesia, Possessor of Voltaire.

## 2. Translate (at sight)—

(a) Je n'approuve pas du tout Rousseau de vouloir supprimer le merveilleux, sous prétexte de mensonge. La raison et l'incrédulité viennent bien assez vite d'elles-mêmes. Je me rappelle fort bien la première année où le doute m'est venu sur l'existence réelle du père Noël. J'avais cinq ou six ans, et il me sembla que ce devait être ma mère qui mettait le gâteau dans mon soulier. Aussi me parut-il moins beau et moins bon que les autres fois, et j'éprouvais une sorte de regret de ne pouvoir plus croire au petit homme à barbe blanche. J'ai vu mon fils y croire plus longtemps; les garçons sont plus simples que les petites filles. Comme moi, il faisait de grands efforts pour veiller jusqu'à minuit. Comme moi, il n'y réussissait pas, et comme moi, il trouvait, au jour, le gâteau merveilleusement pétri dans les cuisines du paradis; mais, pour lui aussi, la première année où il douta fut la dernière visite du bonhomme. Il faut servir aux enfants les mets qui conviennent à leur âge et ne rien devancer. Tant qu'ils ont besoin du merveilleux, il faut leur en donner. Quand ils commencent à s'en dégoûter, il faut bien se garder de prolonger l'erreur et d'entraver le progrès naturel de leur raison.—*George Sand.*

(b)

## LE MIRACLE DE MARIE.

Sur un échafaudage élevé dans le chœur,  
Un jeune homme pensif peignait une Marie.  
Il avait de l'amour et de la flamme au cœur  
Et peignait sans repos d'une main attendrie.

De l'artiste à la fin le sommeil est vainqueur,  
Et voilà qu'il trébuche; et, de sa galerie  
L'Esprit malin le tire avec un ris moqueur.  
Le malheureux perd pied; il s'éveille, il s'écrie :

“ Sainte Vierge, au secours ! ” O miracle ! soudain  
Hors du tableau la Vierge étend ses bras de mère  
Et sur l'abîme ouvert le soutient dans son sein !

Heureux les cœurs fervents ! quand la vie est amère,  
Ils peuvent défaillir, mais ils ne tombent pas :  
L'idéal adoré les retient dans ses bras.

## FIRST YEAR IN ARTS.

## JUNIOR FRENCH II.

## AUTHORS.

## PASS.

- 1, 2 and 3. Translate into English, extracts from Berthon, Specimens of Modern French Verse; Molière, *Les Fâcheux*; Voltaire, *Mérope*
  4. What grounds are there for disputing Molière's originality in *Les Fâcheux*?
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## JUNIOR GERMAN I.

## PROSE COMPOSITION AND UNSEEN TRANSLATION.

## PASS.

1. Translate into German—

A Dervis, travelling through Tartary, being arrived at the town of Balck, went into the king's palace by mistake, thinking it to be a public inn or caravansary. Having looked about for some time, he entered into a long gallery, where he laid down his wallet and spread his carpet, in order to repose himself upon it, after the manner of the Eastern nations. He had not been long in this position before he was discovered by some of the guards, who asked him what was his business in that place. The dervis told them he intended to take up his night's lodging in that caravansary. The guards let him know, in a very angry manner, that the house he was in was not a caravansary, but the king's palace. It happened that the king himself passed through the gallery during this debate, and, smiling at the mistake of the dervis, asked him how he could possibly be so dull as not to distinguish a palace from a caravansary. "Sire, give me leave to ask your majesty a question or two. Who were the persons that lodged in this house when it was first built?" The king replied, "My ancestors." "And who," says the dervis, "was the last person who lodged here?" The king replied, "My father." "And who is it," says the dervis, "that lodges here at present?" The king told him that it was he himself. "And who," says the dervis, "will be here after you?" The king answered, "The young prince, my son." "Ah, Sire," said the

dervis, "a house that changes its inhabitants so often, and receives such a perpetual succession of guests, is not a palace, but a caravansary.

2. Translate (at sight)—

(a) Und versunken plötzlich wie mit einem Zauberschlag war die finstere Winternacht mit ihrem Schlachtenlärm vor meinem innern Auge, und ich stand in Breisach auf dem Münsterplatz und schaute von der stattlichen Anhöhe aus, weit hinein in die lachende grüne Rheinebene, hinüber nach Frankreich, dem damals noch ruhigen Nachbar, der schon in so manchem Kampfe dies Ruhelassen des heiligen römischen Reichs, wie Breisach vor Zeiten hieß, bedroht hatte. Da lag es wieder vor mir in seiner stolzen Ruhe, das altersgraue Gebäude, und über ihm wölbte sich ein sonniger blauer Himmel. Zu Füßen des Berges, auf dem das Städtchen bis zum Münster malerisch ansteigt, floss breit und majestätisch der grüne deutsche Rhein hin, und wenn ich mich über die niedere Einfriedigungsmauer bog, konnte ich von oben herab in die kleinen engen Straßen mit ihrem harmlosen Treiben blicken, wie in eine von Kindern erbaute Stadt. Mein Fuß schritt weiter auf dem weichen grünen Rasenplatz rings um das Münster. Ein paar verspätete alte Mütterchen feuchten mit Gesangbüchern und Rosenkränzen den Berg herauf, und aus der geöffneten Kirchthür drang Weibrauchgeruch und mischte sich mit dem Duft der blühenden Fliederbüsche. Das Messglöcklein ertönte, die Maitäfer summten und einige kleinbürgerlich gepuzte Kinder tummelten sich im Grase, noch unbekümmert um ihr Seelenheil, für das die Mutter drinnen in der Kirche betete. Selbst der „Münstersimpel“, der den Fremden immer die Müze hinstreckt, hatte heute seinen besten Rock an, denn es war Sonntag und ein Sonntag im wahren Sinne des Wortes. Durch die offenen Bogen des Kreuzganges schimmerten die grünen Bogen des Stromes so hell, daß man kaum den Blick darauf heften konnte, und die französische Schildwache drüben über der Schiffbrücke, welche noch freundnachbarlich Alt- und Neubreisach verband, hielt sich, geblendet von dem Sonnenbrand, die Hand vor die Augen.

(b) Ein Rutschpferd sah den Gaul den Pflug im Acker zieh'n  
Und wieherte mit Stolz auf ihn.  
„Wann,“ sprach es, und fing an, die Schenkel schön zu heben,

„Wann kannst du dir ein solches Ansehn geben ?  
 Und wann bewundert dich die Welt ? “—  
 „Schweig,“ rief der Gaul, „und laß mich ruhig pflügen ;  
 Denn baute nicht mein Fleiß das Feld,  
 Wo würdest du den Hafer friegen,  
 Der deiner Schenkel Stolz erhält ? “

Die ihr den Niedern so verachtet,  
 Bornehme Müßiggänger, wißt,  
 Daß selbst der Stolz, mit dem ihr sie betrachtet,  
 Daß euer Vorzug selbst, aus dem ihr sie verachtet,  
 Auf ihren Fleiß gegründet ist.  
 Ist der, der sich und euch durch seine Händ' ernährt,  
 Nichts Bess' res als Verachtung werth ?  
 Gesezt, du hättest bess' re Sitten :  
 So ist der Vorzug doch nicht dein.  
 Denn stammtest du aus ihren Hütten,  
 So hättest du auch ihre Sitten,  
 Und was du bist, und mehr, das würden sie auch sein,  
 Wenn sie wie du erzogen wären.  
 Dich kann die Welt sehr leicht, ihn aber nicht entbehren.

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### JUNIOR GERMAN II.

#### AUTHORS.

#### PASS.

- 1 and 2. Translate into English, extracts from Heine, Prosa ;  
 Lessing, Nathan der Weise.
3. Give a short account in German or English of the changes  
 which Lessing makes in the Parable of the Rings, and of  
 their significance.

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### CHEMISTRY—(INTRODUCTORY).

#### PASS.

1. Describe any two experiments to show that when a chemical  
 change takes place, such as the action of spirits of salt  
 upon marble, no change in weight occurs.
2. How would you prove, by a few short experiments, something  
 about the composition of the air? What other experi-  
 ments, rather difficult to perform, could you quote to  
 support your experiments?

3. Describe what happens (*a*) when spirits of nitre (nitric acid) is poured upon copper, (*b*) when oil of vitriol (sulphuric acid) is heated with nitre, (*c*) when oil of vitriol is added to common salt, (*d*) when oil of vitriol is heated with zinc, and (*e*) when oil of vitriol mixed with water is added to zinc.
4. Describe, with the aid of sketches, the various methods of collecting gases in a gas jar. Under what circumstances would you adopt each method? Give examples of a gas collected by each method.
5. What are the chief properties of the gas obtained by heating ammonium nitrate? How would you prove (1) that the gas is a compound, (2) what substances it contains, and (3) the volume of these substances present in a certain volume of the gas?
6. There are two oxides of carbons, one combustible and the other incombustible. How would you prove that each contains carbon and oxygen, and the relation between the volumes of oxygen contained in each?
7. What are the chief characteristics of solids, liquids and gases? What is the effect of (*a*) increase of temperature, and (*b*) increase of pressure upon each class? Describe experiments to illustrate your answer.
8. What do you understand by the "vapour density" of a gas? How can it be determined? Sulphur burnt in a measured volume of oxygen is found to produce an equal volume of the gas, oxide of sulphur; the vapour density of oxygen is 16, and that of the oxide formed is 32. Calculate the composition by weight of the gas.
9. Indicate briefly the kind of facts upon which Dalton founded his atomic theory. Upon what discoveries did Guy-Lussac base his law of gaseous volumes? Point out (1) how these discoveries may be explained by Avogadro's hypothesis, and (2) the necessity of Avogadro's modification of Dalton's theory. Explain the present meaning of the terms "atom" and "molecule."

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PHYSICS.

PASS.

1. A solid whose density is  $d$ , floats in a liquid whose density is  $d_2$ , the superincumbent fluid being of density  $d_1$ . Give

*b*

the equation of its equilibrium in terms of the volume  $V_s$ , submerged in the liquid, and the total volume of the solid,  $V$ .

2. (a) Give an account of the stability of a floating body. (b) What is the metacentre?
3. (a) What is osmosis? (b) How may osmotic pressure be measured? (c) Define surface tension, and shew how it may be measured.
4. (a) What are thermal capacity and specific heat? (b) Shew the nature of the volume changes with temperature of ice and water, solid and liquid phosphorus, and of an alloy of equal parts of lead, tin, and bismuth.
5. (a) How has the mechanical equivalent of heat been ascertained? (b) Why should it be expressed in absolute measure? (c) Describe the phenomena of conduction, convection, radiation.
6. Give a brief account of wave-motion as applied to waves in a liquid, sound waves, and light waves.

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#### PHYSIOGRAPHY.

The same paper as that set in the First Year of Science.

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SECOND YEAR EXAMINATION.

ENGLISH I.

PASS.

*Not more than EIGHT questions to be attempted. No. 11 is compulsory for all students.  
No. 1 is compulsory for those who have not passed the class examination on Chaucer,  
and optional for the rest.*

1. Paraphrase, with explanatory notes, the following passages—

(a) "What cas," quod Troilus, "or what áventúre  
Hath guided thee to see my languisshíng  
That am refús of every créatúre?  
But for the love of God, at my preyíng  
Go henne away, for certès my deyíng  
Wol thee disese, and I mot nedès deye;  
Therfor go wey, there n'is no more to seye!"

(b) Thise ben they that wolde honour  
Have, and do noskynnès labour,  
Ne do no good, and yit han laude;  
And that men wende that bele Isaude  
Ne coud hem noght of love werne;  
And yit she that grynt at a querne  
Is al to good to ese hir herte.

(c) For the house is crynkled to and fro,  
And hath so queynte weyès for to go,  
For it is shapen as the mase is wrought,  
Thereto have I a remedy in my thoght,  
That by a clewe of twyne, as he hath gon,  
The same way he may returne anon.

(d) O richè marchauntz, ful of wele been yee,  
O noble, o prudent folk, as in this cas!  
Your baggès been nat fild with *ambès as*,  
But with *sys cynk*, that renneth for youre chaunce.

2. Discuss the form and context of two of the following—*The  
Bowege of Courte, Phyllyp Sparowe, Why come ye nat to  
Courte?*

3. How do the following expressions throw light on Shakespeare's conception of the characters and careers of his persons?—
  - (a) Not all the water in the rude rough sea  
Can wash the balm off from an anointed king.
  - (b) Thought's the slave of life, and life time's fool.
  - (c) How many thousand of my poorest subjects  
Are at this hour asleep!
  - (d) His heart is fracted and corroborate.
4. How has what Coleridge calls the "purely historical" character of *Richard II.* interfered with the current appreciation of Bolingbroke's character?
5. "It is no pamper'd glutton we present  
Nor aged counsellor to youthful sin . . . .  
. . . . Let fair truth be graced  
Since forged invention former time disgraced."  
(Prologue to *Sir John Oldcastle.*)  
Describe and explain the circumstances which gave occasion for this reference.
6. What indications of character are given in Hotspur's relations with his wife and with Glendower?
7. On what grounds would it seem correct or the reverse to say that Prince Hal is all his life his father's superior as much in cunning hypocrisy as in royal efficiency and valour?
8. "As a drama *Henry V.* is full of defects."  
Examine this.
9. (a) Explain the allegory;  
or,  
(b) Discuss the sources, of *Comus*.
10. Outline the "authorship problem" of *Edward III.*
11. Explain fully—
  - (a) In Bowge of Court cheuysance to make.
  - (b) Make this lurdayne for to loure,  
Lodge hym in Lytell Ease.
  - (c) Why dost thou converse with that trunk of humours,  
that bolting-hutch of beastliness . . . . that reverend  
vice, that grey iniquity, that father ruffian, that vanity in  
years?

- (d) Other, less fine in carat, is more precious,  
Preserving life in medicine potable ;  
But thou most fine, most honoured, most renowned  
Hast eat thy bearer up.
- (e) *Boling.* Are you contented to resign the crown ?  
*Rich.* Ay, no ; no, ay ; for I must nothing be ;  
Therefore no no, for I resign to thee.
- (f) A made a finer end and went away an it had been any  
christom child.
- (g) Ah, what a world of descant makes my soul  
Upon this voluntary ground of love.
- (h) Whilom she was the daughter of Loocrine  
That had the sceptre from his father Brute.

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ENGLISH II.

PASS.

*Not more than EIGHT questions to be attempted, and not more than FOUR from each part.*

A.

1. Discuss Chaucer as the great English narrative poet.
2. Contrast the progress of poetry and prose in the fifteenth century.
3. Compare Dunbar and Skelton with special reference to the Renaissance movement.
4. What were the contents, and what was the importance of *Tottel's Miscellany* ?
5. Consider the main objections raised against Tyndale's biblical translation, from a literary point of view.
6. "The imitative quality that characterises the *Passionate Century* is visible throughout the *Astrophel and Stella Sonnets*, and destroys those specious pretensions to autobiographic confessions which the unwary reader may discern in them."

Examine the whole question this statement raises.

7. Sidney says that "the poet pretending no more than a tale doth intend the winning of the mind from wickedness to virtue." How would this apply to the greatest poem of his friend Spenser ?

8. What may be cited from the period between Chaucer and Milton to confirm the statement that "the influence of Italian upon English Literature is ubiquitous."

## B.

1. Trace the development and accretions of the English Drama till the appearance of Marlowe.
2. When did Blank Verse become the predominant dramatic measure? Give the history of its development in the English drama.
3. "The man who conceived this dread series must have made his bed in darkness and lain down with despair."  
Discuss this view of the conditions under which Shakespeare's greatest tragedies were produced.
4. Discuss the justice in order, epithet and fulness of Webster's descriptive catalogue: "that full and heightened style of Master Chapman; the laboured and understanding works of Master Jonson; the no less worthy composures of the both worthily excellent Master Beaumont and Master Fletcher; and lastly (without wrong last to be named) the right happy and copious industry of Master Shakespeare, Master Decker, and Master Heywood."
5. "The Domestic or Bourgeois drama is comparatively rare among the Elizabethans."  
Examine this, and describe the exceptions.
6. Describe the Masque in its dramatic aspects, with special reference to its treatment by Jonson.
7. Discuss Webster or Middleton as an artist in the Horrible.
8. "Beaumont and Fletcher were in high society preferred to Shakespeare, but they were immeasurably inferior."  
Examine the reasons for their class popularity and their inferiority.

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 LATIN PROSE COMPOSITION AND UNSEEN TRANSLATION.

## PASS.

1. Translate into Latin—

There were no troops in Rome, and its walls were not in a state to stand a siege; but with Samnites at the gates, party spirit for the moment was hushed, and the men of

military age armed themselves and sallied out against the enemy. They were defeated, however; and when Sulla—following close behind the 700 cavalry which he had sent forward under Balbus—arrived in the afternoon of the 1st of November, he found the enemy encamped within a mile of the city. Rejecting the entreaties of his officers, that he would rest his men before fighting, he attacked at once. It was the bloodiest battle of the whole war. Fifty thousand men are said to have fallen in the two armies, and Sulla himself was only saved from death by his groom, who seeing a spear coming at him, whipped on his horse and just secured him. Nor did his dispositions do him any credit as a general. His right wing under Crassus was completely successful, and drove the enemy to Antemnae, three miles off; but the left, in which he was himself commanding, was driven back upon its camp; and he was so entirely ignorant of what had happened on his right, that he only learnt that Crassus was at Antemnae by a message from him in the evening asking for provisions. Still, the loss inflicted on the enemy had been very great. Pontius himself had fallen, and a large number of prisoners had been taken.

2. Translate into English—

Cum Hannibale nihil eo anno rei gestum est. Nam neque ipse se obtulit in tam recenti vulnere publico privatoque neque lacerant quietum Romani: tantam inesse vim, etsi omnia alia circa eum ruerent, in uno illo duce censebant. Ac nescio an mirabilior adversis quam secundis rebus fuerit, quippe qui, cum et in hostium terra per annos tredecim tam procul ab domo varia fortuna bellum gereret [et] exercitu non suo civili, sed mixto ex conlutione omnium gentium, quibus non lex, non mos, non lingua communis, alius habitus, alia vestis, alia arma, alii ritus, alia sacra, alii prope dei essent, ita quodam uno vinculo copulaverit eos, ut nulla nec inter ipsos nec adversus ducem seditio extiterit, cum et pecunia saepe in stipendium et commeatus in hostium agro deesset, quorum inopia priore Punico bello multa infanda inter duces militesque commissa fuerant. Post Hasdrubalis vero exercitum cum duce, in quibus spes omnis reposita victoriae fuerat, deletum cedendoque in angulum Bruttium cetera Italia concessum, cui non videatur mirabile nullum motum in castris factum?

## LATIN AUTHORS.

## PASS.

A. Translate, with brief notes upon the underlined words, extracts from Horace, Odes.

B. Translate into English, extracts from Sallust, Jugurtha.

C. Translate and comment upon—

(a) Memmius populo persuadet, uti L. Cassius, qui tum praetor erat, ad Jugurtham mitteretur eumque interposita fide publica Romam duceret, quo facilius indicio regis Scauri et reliquorum, quos pecuniae captae arcessebat, delicta patefierent.

(b) Ubi primum ex nobilitate reperti sunt, qui veram gloriam injustae potentiae anteponerent, moveri civitas et dissensio civilis quasi permixtio terrae oriri coepit.

(c) Contemnunt novitatem meam, ego illorum ignaviam; mihi fortuna, illis probra objectantur.

*(For Candidates for Honours only.)*

D. Comment upon the following passages—

(a) Statuit urbes, quae viris aut loco pro hostibus et adversum se opportunissimae erant, singulas circumvenire; ita Jugurtham aut praesidiis nudatum, si ea pateretur, aut proelio certaturum.

(b) Praeterea ex Latio sociisque fortissimum quemque, plerosque militiae, paucos fama cognitos accire, et ambiundo cogere homines emeritis stipendiis secum proficisci.

(c) Nulla certior tamen  
Rapacis Orci fine destinata  
Aula divitem manet  
Herum.

(d) Non ego, pauperum  
Sanguis parentum, non ego quem vocas,  
Dilecte Maecenas, obibo.

(e) Non incendia Karthaginis impiae,  
Ejus qui domita nomen ab Africa  
Lucratus rediit clarius indicant  
Laudes, quam Calabriae Pierides.

DECEMBER EXAMINATION.

xxv.

ROMAN HISTORY.

PASS.

ONE HOUR AND A HALF.

*Not more than FOUR questions to be answered.*

1. Describe the powers and functions of the *Prætors*, and explain how far their functions were altered in the last century of the Republic.
2. State the causes of the social war, and describe its effects upon Italy.
3. Describe the career and sketch the character of Marius.
4. "The hundred years' revolution which dates from him, so far as it was one man's work, was the work of Gaius Gracchus."—*Mommsen*.  
Comment on this statement.
5. Describe the organisation and administration of a Roman province. How did Cæsar deal with the chief provincial questions?

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GREEK—JUNIOR CLASS

(FIRST YEAR HONOURS AND SECOND YEAR PASS.)

UNSEEN TRANSLATION.

Translate into English—

1. Ἀργεῖός εἰμι, πατέρα δ' ἱστορεῖς καλῶς,  
Ἀγαμέμνον' ἀνδρῶν ναυβατῶν ἀρμόστορα·  
ξὺν ᾧ σὺ Τροίαν ἄπολιν Ἰλίου πόλιν  
ἔθηκας. ἔφθιθ' οὗτος οὐ καλῶς, μολὼν  
εἰς οἶκον, ἀλλ' ἔσφαξέ νιν μήτηρ ἐμή.  
κἀγὼ κατελθὼν, τὸν πρὸ τοῦ φεύγων χρόνον,  
ἔκτεινα τὴν τεκοῦσαν, οὐκ ἀρνήσομαι,  
ἀντικτόνοις ποιναῖσι φιλτάτου πατρός.  
καὶ τῶνδε κοινῇ Λοξίας ἐπαίτιος,  
ἄλγη προφωνῶν ἀντίκεντρα καρδία,  
εἰ μή τι τῶνδ' ἔρξαιμι τοὺς ἐπαιτίους.

2. ἐνὸς δὲ ἐνδεεῖς εἰσιν· εἰ γὰρ νῆσον οἰκοῦντες θαλαττοκράτορες ἦσαν Ἀθηναῖοι, ὑπῆρχεν ἂν αὐτοῖς ποιεῖν μὲν κακῶς, εἰ ἡβούλοντο, πάσχειν δὲ μηδέν, ἕως τῆς θαλάττης ἦρχον, μηδὲ τμηθῆναι τὴν αὐτῶν γῆν μηδὲ προσδέχεσθαι τοὺς πολεμίους· νῦν δὲ οἱ γεωργοῦντες καὶ οἱ πλούσιοι Ἀθηναίων ὑπέρχονται τοὺς πολεμίους μᾶλλον, ὁ δὲ δῆμος, ἅτε εὖ εἰδὼς ὅτι οὐδὲν τῶν σφῶν ἐμπρήσουσιν οὐδὲ τεμουῖσιν, ἀδεῶς ζῇ καὶ οὐχ ὑπερχόμενος αὐτούς. πρὸς δὲ τούτοις καὶ ἐτέρου δέους ἀπηλλαγμένοι ἂν ἦσαν, εἰ νῆσον ᾗκουν, μηδέποτε προδοθῆναι τὴν πόλιν ὑπ' ὀλίγων μηδὲ πύλας ἀνοιχθῆναι μηδὲ πολεμίους ἐπεισπεσεῖν· πῶς γὰρ νῆσον οἰκούντων ταῦτ' ἂν ἐγίγνετο; μηδ' αὖ στασιάσαι τῷ δήμῳ μηδέν, εἰ νῆσον ᾗκουν· νῦν μὲν γὰρ εἰ στασιάσειαν, ἐλπίδα ἂν ἔχοντες ἐν τοῖς πολεμίοις στασιάσειαν, ὡς κατὰ γῆν ἐπαξόμενοι· εἰ δὲ νῆσον ᾗκουν, καὶ ταῦτ' ἂν ἀδεῶς εἶχεν αὐτοῖς.

3. καλλίστην δέ ποτε καὶ ἀκριβεστάτην ἔδοξα σκευῶν τάξιν ἰδεῖν, ὃ Σώκρατες, εἰσβὰς ἐπὶ θέαν εἰς τὸ μέγα πλοῖον τὸ Φοινικικόν. πλείστα γὰρ σκεύη ἐν σμικροτάτῳ ἀγγεῖῳ διακεχωρισμένα ἐθεασάμην. καὶ οὕτω κείμενα ἕκαστα κατενόησα ὡς οὔτε ἄλληλα ἐμποδίζει οὔτε μαστευτοῦ δεῖται οὔτε ἀσυσκεύαστά ἐστίν οὔτε δυσλύτως ἔχει, ὥστε διατριβὴν παρέχειν, ὅταν τῷ ταχὺ δέῃ χρῆσθαι. τὸν δὲ τοῦ κυβερνήτου διάκονον, ὃς πρῶτος τῆς νεὼς καλεῖται, οὕτως εὖρον ἐπιστάμενον ἐκάστων τὴν χώραν ὡς καὶ ἀπὼν ἂν εἴποι ὅπου ἕκαστα κεῖται καὶ ὅποσα ἐστὶν οὐδὲν ἥττον ἢ ὁ γράμματα ἐπιστάμενος εἴποι ἂν Σωκράτους καὶ ὅποσα γράμματα καὶ ὅπου ἕκαστον τέτακται.

### GREEK—JUNIOR CLASS.

(FIRST YEAR HONOURS AND SECOND YEAR PASS.)

#### AUTHORS.

1. Translate an extract from Thucydides, Book V.
2. Translate and give notes upon the following passages—
  - (a) δέος δ' ἐγένετο τῇ πανηγύρει μέγα μὴ ξὺν ὅπλοις ἔλθωσιν οἱ Λακεδαιμόνιοι, ἄλλως τε καὶ ἐπειδὴ καὶ Λίχας ὁ Ἀρκεσιλάου, Λακεδαιμόνιος, ἐν τῷ ἀγῶνι ὑπὸ τῶν ῥαβδούχων πληγὰς



ἔλαβεν, ὅτι νικῶντος τοῦ ἑαυτοῦ ζεύγους καὶ ἀνακηρυχθέντος Βοιωτῶν δημοσίου κατὰ τὴν οὐκ ἐξουσίαν τῆς ἀγωνίσεως, προελθὼν ἐς τὸν ἀγῶνα ἀνέδραμε τὸν ἡνίοχον.

(b) καὶ οἰόμενος φθίσεσθαι ἀπελθὼν, σημαίνειν τε ἅμα ἐκέλευεν ἀναχώρησιν καὶ παρήγγειλε τοῖς ἀπιοῦσιν ἐπὶ τὸ εὐώνυμον κέρας, ὥσπερ μόνον οἶόν τ' ἦν, ὑπάγειν ἐπὶ τῆς Ἡϊόνος. ὥς δ' αὐτῷ ἐδόκει σχολὴ γίγνεσθαι, αὐτὸς ἐπιστρέψας τὸ δεξιὸν . . . ἀπῆγε τὴν στρατιάν.

3. Translate an extract from Aristophanes, Knights.

4. Comment upon the following passages, without translating—

(a) ΔΗΜ. ἔτι νῦν τὸν ὀφθαλμὸν παράβαλλ' εἰς Καρίαν  
τὸν ἑξίον, τὸν δ' ἕτερον εἰς Καρχηδόνα.

ΑΛΛ. εὐδαιμονήσω δ', εἰ διαστραφήσομαι;

(b) ΚΛ. ὦ τάν, ἄκουσον, εἴτα διάκρινον τόδε.

Ἔστι γυνή, τέξει δὲ λέονθ' ἱεραῖς ἐν Ἀθήναις,  
ὅς περὶ τοῦ δήμου πολλοῖς κώνωψι μαχεῖται,  
ὥστε περὶ σκύμνοισι βεβηκώς· τὸν σὺ φυλάξαι,  
τείχος ποιήσας ξύλινον πύργους τε σιδηροῦς.

5. Translate an extract from Æschylus, Persae.

6. Translate and comment upon the following passages—

(a) πᾶς γὰρ ἱππηλάτας καὶ πεδοστιβῆς λεὼς  
σμῆνος ὥς ἐκλέλοιπεν μελισσῶν ξὺν ὀρχάμῳ στρατοῦ,  
τὸν ἀμφίζευκτον ἐξαμείψας ἀμφοτέρως ἄλιον  
πρῶνα κοινὸν αἴας.

(b) τοὶ δ' ὥστε θύννους ἢ τιν' ἰχθύων βόλον  
ἀγαῖσι κωπῶν θραύμασιν τ' ἐρειπίων  
ἔπαιον, ἐρράχιζον, οἰμωγὴ δ' ὁμοῦ  
κωκύμασιν κατεῖχε πελαγίαν ἅλα,  
ἕως κελαινῆς νυκτὸς ὄμμ' ἀφείλετο.

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GREEK HISTORY.

PASS.

The same paper as that set in the First Year Examination.

## MATHEMATICS.

The same papers as those set in the Second Year of Science.

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## SENIOR FRENCH I.

PROSE COMPOSITION, TRANSLATION AT SIGHT, ETC.

PASS.

## 1. Translate into French—

I remained at the Pont du Gard for an hour, and got a complete impression; the place was perfectly soundless, and for the time, at least, lonely; the splendid afternoon had begun to fade, and there was a fascination in the object I had come to see. It came to pass that at the same time I discovered in it a certain stupidity, a vague brutality. That element is rarely absent from great Roman work, which is wanting in the nice adaptation of the means to the end. The means are always exaggerated; the end is so much more than attained.

The preservation of the thing is extraordinary; nothing has crumbled or collapsed; every feature remains; and the huge blocks of stone, of a brownish-yellow (as if they had been baked by the Provençal sun for eighteen centuries), pile themselves as evenly as the day they were laid together. All this to carry the water of a couple of springs to a little provincial city! When the vague twilight began to gather, the lonely valley seemed to fill itself with the shadow of the Roman name, as if the mighty empire were still as erect as the supports of the aqueduct; and it was open to a solitary tourist, sitting there sentimental, to believe that no people has ever been, or ever will be, as great as that, measured, as we measure the greatness of an individual, by the push they gave to what they undertook. The Pont du Gard is one of the three or four deepest impressions they have left; it speaks of them in a manner with which they might have been satisfied.

## 2. Translate into English—

## ASPECT DE TUNIS.

On voit des rues entières de marchands qui vendent des coffres de nacre ou d'écaille, des bijoux du Levant, des

essences de rose et de jasmin qui embaument l'atmosphère; des tissus merveilleux brodés d'or et faits à la main, des étoffes de soie de toute espèce, des tapis, des burnous grossiers en poil de chèvre ou de chameau, ou des burnous fins garnis de franges et de nœuds de soie brillante; des couvertures de laine aux dessins variés et bizarres, ou aux larges raies vertes, rouges, bleues et blanches; à quoi il faut ajouter les nombreux vendeurs de fruits, d'épices, de tabac et de quincaillerie, qui se trouvent partout. Dans plusieurs rues et bazars, on voit de sveltes palmiers qui s'élancent gracieusement auprès d'un café maure, ou d'énormes figuiers dont la riche végétation ombrage les nombreuses petites boutiques qui se pressent les unes contre les autres, semblables aux alvéoles d'un rayon de miel.—Les affaires sont terminées de bonne heure dans le monde indigène; les magasins sont fermés, pour la plupart, à trois ou quatre heures. L'après-midi, d'ailleurs, ceux des marchands qui ne dorment pas dans leur boutique, accroupis sur des tapis, boivent du café maure et ne s'occupent guère des chalands.

3. (FIVE questions only to be attempted, of which (a) is compulsory and must be answered in French.)

- (a) "J'ai lu Werther, René, son frère d'alliance,  
Ces livres, vrais poisons du cœur."

Comment.

- (b) What causes contributed to the peculiar character of the Emigrant Literature?

- (c) "We know very little about a talent till we know where that talent grew up." Discuss this statement with reference to Chateaubriand.

- (d) What is Mme. de Staël's point of view in *Delphine* and *Corinne* respectively?

- (e) For what ideas do de Maistre and Lammenais stand in the intellectual life of their time?

- (f) What elements in the social life of 1820-1830 may be held to have affected the Romantic Literature?

- (g) In what relation do Mérimée, Gautier, de Musset, find themselves to the Romantic Movement?

U. O. S.

xxx.

SECOND YEAR IN ARTS.

SENIOR FRENCH II.

AUTHORS.

PASS.

Translate into English, extracts from Pages choisies de Sainte-Beuve; Pages choisies de Th. Gautier; Berthon, Specimens of Modern French Verse; George Sand, *La Mare au diable*; Hugo, *Le Roi s'amuse*.

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SENIOR GERMAN I.

PROSE COMPOSITION AND UNSEEN TRANSLATION.

PASS.

1. Translate into German—

Among all kinds of writing, there is none in which authors are more apt to miscarry than in works of humour, as there is none in which they are more ambitious to excel. It is not an imagination that teems with monsters, an head that is filled with extravagant conceptions, which is capable of furnishing the world with diversions of this nature; and yet if we look into the productions of several writers, who set up for men of humour, what wild irregular fancies, what unnatural distortions of thought do we meet with? If they speak nonsense, they believe they are talking humour; and when they have drawn together a scheme of absurd, inconsistent ideas, they are not able to read it over to themselves without laughing. These poor gentlemen endeavour to gain themselves the reputation of wits and humorists, by such monstrous conceits as almost qualify them for *Bedlam*; not considering that humour should always lie under the check of reason, and that it requires the direction of the nicest judgment, by so much the more as it indulges itself in the most boundless freedoms. There is a kind of nature that is to be observed in this sort of compositions, as well as in all other, and a certain regularity of thought which must discover the writer to be a man of sense, at the same time that he appears altogether given up to caprice. For my part, when I read the delirious mirth of an unskilful author, I cannot be so barbarous as to divert myself with it, but am rather apt to pity the man than to laugh at anything he writes.

## 2. Translate (at sight)—

Die Gleichgültigkeit, mit der unser philosophierendes Zeitalter auf die Spiele der Musen herabzusehen anfängt, scheint keine Gattung der Poesie empfindlicher zu treffen, als die lyrische. Der dramatischen Dichtkunst dient doch wenigstens die Einrichtung des gesellschaftlichen Lebens zu einigem Schutze, und der erzählenden erlaubt ihre freiere Form, sich dem Welton mehr anzuschmiegen und den Geist der Zeit in sich aufzunehmen. Aber die jährlichen Almanache, die Gesellschafts-Gesänge, die Musikliebhaberei unsrer Damen sind nur ein schwacher Damm gegen den Verfall der lyrischen Dichtkunst. Und doch wäre es für den Freund des Schönen ein sehr niederschlagender Gedanke, wenn diese jugendlichen Blüthen des Geistes in der Fruchtzeit absterben, wenn die reifere Cultur auch nur mit einem einzigen Schönheitsgenusz erkaufte werden sollte. Vielmehr liesze sich auch in unsern so unpoetischen Tagen, wie für die Dichtkunst überhaupt, also auch für die lyrische, eine sehr würdige Bestimmung entdecken; es liesze sich vielleicht darthun, dasz, wenn sie von einer Seite höhern Geistesbeschäftigungen nachstehen musz, sie von einer andern nur desto nothwendiger geworden ist. Bei der Vereinzelung und getrennten Wirksamkeit unserer Geisteskräfte, die der erweiterte Kreis des Wissens und die Absonderung der Berufsgeschäfte nothwendig macht, ist es die Dichtkunst beinahe allein, welche die getrennten Kräfte der Seele wieder in Vereinigung bringt, welche Kopf und Herz, Scharfsinn und Witz, Vernunft und Einbildungskraft in harmonischem Bunde beschäftigt, welche gleichsam den ganzen Menschen in uns wieder herstellt.

## 3. (a) Describe the influence of Fichte on the Romantic movement.

(b) What is the meaning of "Romantic Irony"?

(c) "Wie bei den Malern, kann man auch bei Herrn Tieck mehrere Manieren unterscheiden."

Explain this statement fully.

(d) What claim has Hoffmann to be considered one of the Romantic school.

(e) Write in German a short description of the characteristics of Heine's poetry.

## SENIOR GERMAN II.

## AUTHORS.

## PASS.

- 1, 2, 3, 4, 5.—Translate into English, giving necessary explanations, Heine, Ueber Deutschland; Goethe, Faust, Part II; Kleist, Käthchen Von Heilbronn; Uhland, Herzog von Schwaben; Buchheim, Deutsche Lyrik.

## LOGIC AND MENTAL PHILOSOPHY.

## PASS.

*Select TWO questions from each section. Short clear answers required.*

## SECTION A.

1. If the conclusion of the syllogism is contained in the premisses, how is syllogistic reasoning to be distinguished from petitio principii?
2. Define and divide, in accordance with logical principles, either (a) parliament, or (b) church.
3. What is meant by the fallacy of asserting the consequent in hypothetical propositions? Show that it is equivalent to the fallacy of undistributed middle term.

## SECTION B.

4. It is said that "verification does not supply logical proof of an hypothesis." Why not? On what conditions may such logical proof be attained?
5. Show how the method of concomitant variations may be applied to cases that cannot be resolved by other methods.
6. Discuss the logical value of circumstantial evidence.

## SECTION C.

7. How are the ordinary, the scientific, and the philosophic consciousness connected as three stages in the progress of knowledge?
8. What meaning do you attach to each of the following terms:—Dualism, monism, sensationalism, empiricism?
9. What is a *final cause*? What is an *efficient cause*? What are the scientific objections to explanation by final causes?

SECTION D.

10. What are the special characteristics of æsthetic feeling? Illustrate.
11. "The end is always self-realisation." Explain and illustrate by reference to specific acts of will.
12. How does religious feeling differ psychologically from moral feeling?

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LOGIC AND MENTAL PHILOSOPHY.

HONOURS I.

1. To what extent is the empirical theory of knowledge compatible with the methods and results of science?
2. Comment on each of the following statements—
  - (a) The methods of induction may be inductive in their aim, but they are deductive in their method.
  - (b) Plurality of causes is a phrase which describes a defect of knowledge rather than a fact of nature.
3. How would you apply logical methods of investigation in dealing with one of the following cases?
  - (a) An instance of animal intelligence.
  - (b) The relation of tariffs to prices.
4. Thinking means simply the free play of the associative activities under central control.  
Discuss this statement, and illustrate by reference to the activity of attention.
5. Discuss the psychological validity of the distinction between selfish (egoistic) and unselfish (altruistic) feeling.
6. What do you consider to be the aim and scope of metaphysics?
7. Discuss the validity of Comte's law of the three stages.

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HISTORY I.

PASS.

*You are recommended to answer SEVEN questions, and no more.*

1. "The English conquest for a hundred and fifty years was a sheer dispossession and driving back of the people whom

the English conquered. So far as the English sword in those earlier days reached, Britain became England, a land, that is, not of Britons, but of Englishmen."

Discuss this statement.

2. Sketch the history of Northumbria to the days of Bede.
3. Explain the importance, or the interest, of the battle of Deorham (577), the Peace of Wedmore (878), the battle of Brunanburh (937).
4. "Through the two hundred years that lie between the flight of Ethelred from England to Normandy and that of John from Normandy to England our story is a story of foreign rule."

Explain this statement. What were the most important consequences of the fact that the Kings of England during this period were foreigners?

5. In what respects was the rule of the Norman Kings better than that of the Saxons?
6. By what arguments did the Church during the Middle Ages support its claim to privilege and power?
7. "Igitur communitas regni consulatur, et quid universitas sentiat sciatur."

Show how the policy of Simon de Montfort sought to give effect to this maxim.

8. Describe the growth of Oxford University during the thirteenth century.
9. Discuss the view that the character of Edward I. was that of an aggressive and unscrupulous conqueror. Compare his character in this respect with that of Edward III.

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## HISTORY II.

### PASS.

*You are recommended to answer SEVEN questions, and no more.*

1. In what ways does the poetry of Chaucer and Longland illustrate the characteristics of the period in which they lived?
2. Write short notes about Piers Gaveston, John of Gaunt, and John Ball.



3. Write a short account of the history of "Lollardry" after the death of Wycliffe.
4. Explain the constitutional importance of the accession of the Yorkists.
5. What lands were ruled by the Emperor Charles V.? Explain how they came into his possession.
6. Give some account of the life and work of John Colet.
7. Show how the life and writings of Sir Thomas More were influenced both by the Catholic ideals, and by the New Learning.
8. Summarise the most important results of Wolsey's administration.
9. Show the influence of Thomas Cromwell in the "Reformation" under Henry VIII.
10. What were the causes of the rebellions in the reign of Edward VI.?
11. Write a short account of maritime adventure in the reign of Elizabeth.

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HISTORY I.

HONOURS.

*You are recommended to answer SEVEN questions, and no more.*

1. "The second landing at Ebbsfleet (Augustine's) was in no small measure the reversal and undoing of the first" (Hengist's).

Discuss.

2. What were the most important changes which took place in the secular institutions of the English tribes during the three hundred years which followed their conquest of Britain?

3. "Each change in our law and constitution has been, not the bringing in of anything wholly new, but the development of something that was already old."

Examine the changes brought about by the Norman Conquest with a view to testing the truth of this statement.

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4. In what ways, and for what reasons, did Henry II. place increased power in the hands of the people?
5. "For eighty years from the 'Parliament of Runnymede,' the history of England is the narrative of a struggle of the nation with the king, for the real enjoyment of the rights and liberties enunciated in the charter, or for the safeguards which experience showed to be necessary for the maintenance of those rights."

Explain and illustrate.

6. "For crown and cloth make no priest, nor the emperor's bishop with his words, but power that Christ giveth, and thus by life are priests known."

Explain the historical significance of Wycliffe's statement.

7. Write a short account of the woollen trade and manufactures in England in the fourteenth century.
8. "Non jugum sed libertas est politice regere populum."—  
(*Fortescue.*)

Explain this theory, and show its importance during the middle ages.

9. "Luther despised reason as heartily as any Papal dogmatist could despise it."

Discuss.

10. "The king's majesty hath as well the care of the souls of his subjects as their bodies."

Explain this view and show how it found expression in the "Reformation" under Henry VIII.

11. "The Church of the Elizabethan compromise."

Explain.

12. "Himself an Elizabethan to the core, he (Shakspeare) stood at the meeting point of two great epochs of our history."

Discuss.

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THIRD YEAR EXAMINATION.

ENGLISH I.

PASS.

*Not more than FOUR questions to be attempted in Section A, and not more than FIVE in Section B.*

A.

1. "In *Henry VI. A*, Shakespeare merely inserted into an earlier play scenes that might connect it with parts *B* and *C*."

Discuss this view.

2. Compare and contrast the causes of failure in *Henry VI.* and *Richard II.*
3. Compare Shakespeare's three great usurping kings, *Richard III*, *King John* and *Henry IV.*
4. In what sense and how far may Shakespeare's Histories be treated as a connected series?
5. Discuss the changes in history which Shakespeare made in *Henry IV.*
6. (a) Comment on the statement that Shakespeare's celebration of *Henry V.* as the national hero contains a strain of irony.

Or,

- (b) Discuss the statements that *Henry VIII.* "is a glorification of the New Era," and that it is "an invective against the Reformation."

B.

1. Compare Dryden's *Religio Laici* with Pope's *Essay on Man*.
2. Show how *Absalom and Achitophel* and *The Battle of the Books* illustrate their authors' satirical styles.
3. What are the outstanding characteristics of Defoe's *Journal of the Plague Year*?

4. Examine the character of either Sir Roger de Coverley or Uncle Toby as that of a "good man" in an eccentric presentment.
5. State and criticise Dr. Johnson's view of Butler's Burlesque.
6. "A bundle of incoherent thoughts in a like parcel of irregular stanzas."

What is the relation of Gray's Pindaric style to this description?

7. (I.) Compare the form and context of the following verses—

(a) In vain to me the smiling mornings shine,  
 And redning Phœbus lifts his golden Fire :  
 The birds in vain their amorous Descant joyn ;  
 Or chearful Fields resume their green Attire :  
 These Ears, alas ! for other Notes repine,  
 A different object do these Eyes require :  
 My lonely Anguish melts no Heart but mine ;  
 And in my Breast the imperfect Joys expire.  
 Yet Morning smiles the busy Race to chear,  
 And new-born Pleasure brings to happier Men :  
 The Fields to all their wonted Tribute bear ;  
 To warm their little loves the Birds complain :  
 I fruitless mourn to him that cannot hear,  
 And weep the more because I weep in vain.

(b) His latest victories still thickest came,  
 As near the centre motion does increase ;  
 Till he, pressed down by his own weighty name,  
 Did, like the Vestal, under spoils decease.

(c) All are but parts of one stupendous whole,  
 Whose body nature is and God the soul.

- (II.) Discuss the following passages—

(a) Boyle observed him well, and soon discovering the helmet and shield of Phalaris his friend, both which he had lately with his own hands new polished and gilt, rage sparkled in his eyes, and, leaving his pursuit after Wotton, he furiously rushed on against this new approacher.

(b) We had no such thing as printed News Papers in those days to spread Rumours and Reports of Things ; and to improve them by the Invention of Men as I have lived to see practis'd since.

- (c) As one of Denham's principal claims to the regard of posterity arises from his improvement of our numbers his versification ought to be considered. It will afford that pleasure which arises from the observation of a man of judgment, naturally right, forsaking bad copies by degrees, and advancing towards a better practice as he gains more confidence in himself.

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ENGLISH II.

PASS.

*Not more than EIGHT questions are to be attempted.*

1. Estimate the literary quality of Pepys's Diary.
2. What is the position occupied by Waller among Dryden's older contemporaries?
3. Discuss Dryden as a dramatist.
4. "When Congreve left the stage, comedy left it with him."  
What were the circumstances that led to Congreve's withdrawal, and the results that seemed to justify this statement?
5. Estimate the importance of Steele and Addison from the social and from the literary point of view.
6. Compare (a) Dryden and Pope as translators,  
or,  
(b) Pope and Swift as satirists.
7. Compare the position of Dryden and of Pope in regard to Literature as a profession.
8. Give an account of the poetry of Natural Description in the first half of the 18th century.
9. How do the works of Defoe and Richardson show that the art of novel-writing is still in its infancy?
10. Account for Fielding's greater success in the Novel than in the Drama.
11. Compare Smollett and Sterne as humourists.
12. "Gray was isolated in his century, hence he could not fully educe and enjoy his poetic qualities."  
Examine this criticism.

## LATIN—TACITUS AND UNSEEN TRANSLATION.

## PASS.

1. Translate into English, extracts from Tacitus, *Annals* III. and IV.

2. Translate and comment on—

(a) Primus sententiam rogatus Aurelius Cotta consul (nam referente Caesare magistratus eo etiam munere fungebantur) nomen Pisonis eradendum fastis censuit.

(b) Cn. Pompeius tertium consul corrigendis moribus delectus, set gravior remediis quam delicta erant suarumque legum auctor idem et subversor, quae armis tuebatur, armis amisit.

(c) Tum supplicia dis ludique magni ab senatu decernuntur, quos pontifices et augures et quindecimviri septemviris simul et sodalibus Augustalibus ederent.

(d) (Seianus) vim praefecturae modicam antea intendit, dispersas per urbem cohortes una in castra conducendo.

(e) Res suas Caesar spectatissimo cuique, quibusdam ignotis ex fama mandabat; semelque adsumpti tenebantur prorsus sine modo.

3. Translate—

(a) Quartum idus Ianuarias, foedum imbribus diem, tonitrua et fulgura et caelestes minae ultra solitum turbaverant. Observatum id antiquitus comitiis dirimendis non terruit Galbam, quo minus in castra pergeret, contemptorem talium ut fortuitorum, seu quae fata monent, quamvis significata non vitantur. Apud frequentem militum contionem imperatoria brevitate adoptari a se Pisonem exemplo divi Augusti et more militari, quo vir virum legeret, pronuntiat. Ac ne dissimulata seditio in maius crederetur, ultro adseverat quartam et duoetvicensimam legiones paucis seditionis auctoribus non ultra verba ac voces errasse et brevi in officio fore. Nec ullum orationi aut lenocinium addit aut pretium. Tribuni tamen centurionesque et proximi militum grata auditu respondent: per ceteros maestitia ac silentium, tamquam usurpatam etiam in pace donativi necessitatem bello perdidissent. Constat potuisse conciliari animos quantum lacumque parci senis liberalitate: nocuit antiquus rigor et nimia severitas, cui iam pares non sumus.

- (b) “ O positi sub terra numina mundi,  
 In quem reccidimus, quicquid mortale creamur ;  
 Si licet et, falsi positis ambagibus oris,  
 Vera loqui sinitis : non huc, ut opaca viderem  
 Tartara, descendi, nec uti villosa colubris  
 Terna Medusaei vincirem guttura monstri.  
 Causa viae est coniunx, in quam calcata venenum  
 Vipera diffudit, crescentesque abstulit annos.  
 Posse pati volui, nec me temptasse negabo :  
 Vicit Amor. Supera deus hic bene notus in ora est :  
 An sit et hic, dubito. Sed et hic tamen auguror esse ;  
 Famaque si veteris non est mentita rapinae,  
 Vos quoque iunxit Amor. Per ego haec loca plena timoris,  
 Per Chaos hoc ingens vastique silentia regni,  
 Eurydices, oro, properata retexite fata.  
 Omnia debemus vobis, paulumque morati  
 Serius aut citius sedem properamus ad unam.”

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LATIN AUTHORS—(LUCRETIVS AND CICERO).

PASS.

- A. Translate and comment upon passages from Lucretius ;  
 Cicero, De Finibus, I. and II.

(For Candidates for Honours only.)

- B.—Comment upon the following—

- (a) Semper in assiduo motu res quaeque geruntur  
 partibus e cunctis infernaque suppeditantur  
 ex infinito cita corpora materiai.
- (b) Deinde ex sensilibus qui sensile posse creari  
 constituunt porro ex aliis sentire suetis,  
 mollia cum faciunt.
- (c) Si non forte tuas legiones per loca campi  
 fervere cum videas belli simulacra cientis,  
 subsidiis magnis epicuri constabilitas,  
 ornatas armis itastuas pariterque animatas,  
 his tibi tum rebus timefactae religiones.
- (d) Nam sunt et in animo praecipua quaedam et in corpore,  
 quae cum leviter agnovit, tunc discernere incipit, ut ea,  
 quae prima data sint natura, appetat asperneturque  
 contraria.

## LATIN GENERAL PAPER,

(PASS.)

1. Explain how the government of the State was divided between the Princeps and the Senate under the system of Augustus.
2. State what you consider the chief reasons for the general acquiescence in the rule of Augustus.
3. Give an account of Thrasea Paetus and of Nero's attitude to the philosophers of his time.
4. Sketch the character and describe the civil government of Vespasian.
5. "It rarely happens that the most typical man of an age is selected by destiny to be a sovereign. It happened in the case of Hadrian."—Comment on this statement.
6. "In regard to the religious attitude of the educated, there was a notable difference between the first and second centuries."—Comment on this.
7. Discuss the view that Cicero's oratorical training affected both his choice of a system of philosophy and his method of treating philosophic questions.
8. Compare the style of Tacitus with that of Cicero or Livy.

## GREEK—SENIOR CLASS

(SECOND YEAR HONOURS AND THIRD YEAR PASS).

## UNSEEN TRANSLATION.

Translate into English—

1. Εἰ δέ τι δοκεῖ ταῦτα καὶ ἀπανήης μεγάλης καὶ πόνων πολλῶν καὶ πραγματείας εἶναι, καὶ μάλα ὀρθῶς δοκεῖ· ἀλλ' ἐὰν λογισθῇ τὰ τῇ πόλει μετὰ ταῦτα γενησόμενα, ἂν ταῦτα μὴ ἐθέλῃ ποιεῖν, εὐρήσει λυσιτελοῦν τὸ ἐκόντας ποιεῖν τὰ δέοντα. εἰ μὲν γάρ ἐστὶ τις ἐγγρητῆς ὑμῖν θεῶν (οὐ γὰρ ἀνθρώπων γ' οὐδεὶς ἂν γένοιτο ἀξιοχρεῶς τηλικούτου πράγματος) ὥς, ἐὰν ἄγῃθ' ἡσυχίαν καὶ ἅπαντα πρόησθε, οὐκ ἐπ' αὐτοὺς ὑμᾶς τελευτιῶν ἐκείνος ἥξει, αἰσχροὺς μὲν νῆ τὸν Δία καὶ πάντας θεοὺς καὶ ἀνάξιον ὑμῶν καὶ τῶν ὑπαρχόντων τῇ πόλει καὶ πεπραγμένων τοῖς προγόνοις, τῆς ἰδίας ἕνεκα ῥαθυμίας τοὺς ἄλλους πάντας



Ἕλληνας εἰς δουλείαν προέσθαι, καὶ ἔγωγε αὐτὸν μὲν τεθνάναι μᾶλλον ἢ ταῦτ' εἰρηκέναι βουλοίμην· οὐ μὲν ἄλλ' εἴ τις ἄλλος λέγει καὶ ὑμᾶς πείθει, ἔστω, μὴ ἀμύνεσθε, ἅπαντα πρόεσθε. εἰ δὲ μηδενὶ τοῦτο δοκεῖ, τούναντίον δὲ προΐσμεν ἅπαντες, ὅτι ὅσῳ ἂν πλειόνων ἐάσωμεν ἐκεῖνον γενέσθαι κύριον, τοσούτῳ χαλεπωτέρῳ καὶ ἰσχυροτέρῳ χρησόμεθα ἐχθρῷ, ποῖ ἀναδυνόμεθα ἢ τί μέλλομεν; ἢ πότε, ὦ ἄνδρες Ἀθηναῖοι, τὰ ῥέοντα ποιεῖν ἐβελήσομεν;

2. Ἄλλ' εἰ μὲν ταχυτῆτι ποδῶν νίκην τις ἄροιτο  
 ἢ πενταθλεύων, ἔνθα Διὸς τέμενος  
 παρ Πίσαιο ῥοῆς ἐν Ὀλυμπίῃ, εἴτε παλαίων,  
 ἢ καὶ πυκτοσύνην ἀλγινόεσσαν ἔχων,  
 εἴτε τὸ δεινὸν ἄεθλον, ὃ παγκράτιον καλέουσιν,  
 ἄστοίσιν κ' εἴη κυδρότερος προσορᾶν,  
 καί κε προεδρίην φανερὴν ἐν ἀγῶσιν ἄροιτο,  
 καί κεν σῖτ' εἴη δημοσίων κτεάνων  
 ἐκ πόλεως καὶ δῶρον, ὃ οἱ κειμήλιον εἴη·  
 εἴτε καὶ ἵπποισιν, ταῦτά χ' ἅπαντα λάχοι,  
 οὐκ ἐὼν ἄξιος, ὥσπερ ἐγὼ· ῥώμης γὰρ ἀμείνων  
 ἀνδρῶν ἢ δ' ἵππων ἡμετέρῃ σοφίῃ.  
 ἄλλ' εἰκὴ μάλα τοῦτο νομίζεται· οὐδὲ δίκαιοι  
 προκρίνειν ῥώμην τῆς ἀγαθῆς σοφίης.  
 οὔτε γὰρ εἰ πύκτης ἀγαθὸς λαοῖσι μετεΐη,  
 οὔτ' εἰ πενταθλεῖν, οὔτε παλαισμοσύνην,  
 οὐδὲ μὲν εἰ ταχυτῆτι ποδῶν, τό πέρ ἐστι πρότιμον  
 ῥώμης ὅσος ἀνδρῶν ἔργ' ἐν ἀγῶσι πέλει,  
 τοῦνεκεν ἂν δὴ μᾶλλον ἐν εὐνομίῃ πόλις εἴη·  
 σμικρὸν δ' ἂν τι πόλει χάρμιν γένοιτ' ἐπὶ τῇ,  
 εἴ τις ἀεθλεύων νικῶ Πίσαιο παρ' ὄχθας·  
 οὐ γὰρ πιαίνει ταῦτα μυχοὺς πόλεως.

3. Γεγενημένης δὲ τῆς νίκης τοῖς Συρακοσίοις λαμπρᾶς ἤδη καὶ τοῦ ναυτικοῦ (πρότερον μὲν γὰρ ἐφοβοῦντο τὰς μετὰ τοῦ Δημοσθένους ναῦς ἐπελθούσας), οἱ μὲν Ἀθηναῖοι ἐν παντὶ δὴ ἀθυμίας ἦσαν καὶ ὁ παράλογος αὐτοῖς μέγας ἦν, πολὺν δὲ μεῖζων ἔτι τῆς στρατείας ὁ μετάμελος. πόλεσι γὰρ ταύταις μόναίς ἤδη ὁμοιοτρόποις ἐπελθόντες, δημοκρατουμέναις τε, ὥσπερ καὶ αὐτοί, καὶ ναῦς καὶ ἵππους καὶ μεγέθη ἐχούσαις, οὐ δυνάμενοι ἐπενεγκεῖν οὔτε ἐκ πολιτείας τι μεταβολῆς τὸ διάφορον αὐτοῖς ὧς προσήγοντο ἄν, οὔτ' ἐκ παρασκευῆς πολλῇ κρείσσους, σφαιλλόμενοι δὲ τὰ πλείω, τὰ τε πρὸ αὐτῶν ἠπόρουν καὶ ἐπειδὴ γε καὶ ταῖς ναυσὶν ἐκρατήθησαν, ὃ οὐκ ἂν ἔχοντο, πολλῇ δὴ μᾶλλον

ἔτι. οἱ δὲ Συρακόσιοι τὸν τε λιμένα εὐθὺς παρέπλεον ἀδεῶς καὶ τὸ στόμα πύτου διανοοῦντο κλήσειν, ὅπως μηκέτι, μηδ' εἰ βούλοιτο, λάθοιεν αὐτοὺς οἱ Ἀθηναῖοι ἐκπλεύσαντες. οὐ γὰρ περὶ τοῦ αὐτοῖ σωθῆναι μόνον ἔτι τὴν ἐπιμέλειαν ἐποιοῦντο, ἀλλὰ καὶ ὅπως ἐκείνους κωλύσωσι.

### GREEK—SENIOR CLASS

(SECOND YEAR HONOURS AND THIRD YEAR PASS.)

#### AUTHORS.

1. Translate into English, an extract from Æschylus, Persæ.
2. Translate and comment upon the following passages—
  - (a) πῶς γὰρ ἱππηλάτας καὶ πεδοστιβῆς λεῶς  
σμῆνος ὥς ἐκλέλοιπεν μελισσᾶν ξὺν ὀρχάμῃ στρατοῦ,  
τὸν ἀμφίζευκτον ἐξαμείψας ἀμφοτέρας ἄλιον
  - (b) τοῖ δ' ὥστε θύννους ἢ τιν' ἰχθύων βόλον  
ἀγαῖσι κωπῶν θραύμασιν τ' ἐρειπίων  
ἔπαιον, ἐρράχιζον, οἰμωγὴ δ' ὁμοῦ  
κωκύμασιν κατεῖχε πελαγίαν ἅλα,  
ἔως κελαινῆς νυκτὸς ὄμμ' ἀφειλετο.
3. Translate into English, extracts from Homer, Odyssey, Books XVII.-XIX.
4. Give short notes upon the following passages, *without translating*—
  - (a) τοῦδ' αὐτοῦ λυκάβαντος ἐλεύσεται ἐνθάδ' Ὀδυσσεὺς,  
τοῦ μὲν φθίνοντος μηνὸς, τοῦ δ' ἰσταμένοιο.
  - (b) ἴξε δ' ἐπὶ μελίνου οὐδοῦ ἔντοσθε θυράων,  
κλινάμενος σταθμῇ κυπαρισσίνῃ, ὃν ποτε τέκτων  
ξέσσειν ἐπισταμένως καὶ ἐπὶ στάθμην ἴθυνε.
  - (c) στή ρη παρὰ σταθμὸν τίγχεος πύκα ποιητοῖο,  
ἅντα παρειάων σχομένη λιπαρὰ κρήδεμνα.
5. Translate—
 

Ἔστι δὲ καὶ ἄλλος ὅς τε λόγος λεγόμενος, ὡς ἐπειδὴ Ξέρξης ἀπελαύνων ἐξ Ἀθηνέων ἀπύκετο ἐπ' Ἡϊόνα τὴν ἐπὶ Στρυμόνι, ἐνθεῖπτεν οὐκέτι ὁδοιπορίῃσι ἐιεχράτο, ἀλλὰ τὴν μὲν στρατιὴν Ὑδάρνεϊ ἐπιτράπει ἀπάγειν ἐς τὸν Ἑλλήσποντον, αὐτὸς δ' ἐπὶ νεὸς Φοινίσσης ἐπιβὰς ἐκομίζετο ἐς τὴν Ἀσίην. πλώοντα δὲ μιν

ἄνεμον Στρυμονίην ὑπολαβεῖν μέγαν καὶ κυματίν. καὶ δὴ, μᾶλλον γάρ τι χειμαίνεσθαι γεμούσης τῆς νεὸς ὥστε ἐπὶ τοῦ καταστρώματος ἐπρόντων συχνῶν Περσέων τῶν σὺν Ξέρξῃ κομιζομένων, ἐνθαῦτα ἐς δεῖμα πεσόντα τὸν βασιλέα εἶρεσθαι βώσπαντα τὸν κυβερνήτην, εἴ τις ἐστί σφι σωτηρίη. καὶ τὸν εἶπαι· Δέσποτα, οὐκ ἔστι οὐδεμία, ἣν μὴ τούτων ἀπαλλαγὴ τις γένηται τῶν πολλῶν ἐπιβατέων.

6. Translate and comment upon the following passages—

- (a) μετὰ δὲ τοῦτο, ὥς οὐδεῖς σφι ἐπέπλωε, δείλῃν ὀψίνην γινόμενῃ τῆς ἡμέρης φυλάξαντες αὐτοὶ ἐπανέπλωον ἐπὶ τοὺς βαρβάρους, ἀπόπειραν αὐτῶν ποιήσασθαι βουλόμενοί τῆς τε μάχης καὶ τοῦ διεκπλόου.
- (b) ἀριθμὸς δὲ ἐγένετο ὁ πᾶς τῶν νεῶν (sc. of the Greeks at Salamis), παρέξ τῶν πεντηκοντέρων, τριηκόσιαι καὶ ἑβδομήκοντα καὶ ὀκτώ.
- (c) ἐς τοιαῦτα μὲν καὶ οἷτω ἐναργέως λέγοντι Βάκιδι ἀντιλογίης χρησμῶν πέρι οὔτε αὐτὸς λέγειν τολμῶ οὔτε παρ' ἄλλων ἐνδέχομαι.
- (d) τοῦτο μὲν ἐς τὴν νησιᾶ τὴν Ψυττάλειαν, μεταξὺ Σαλαμῖνος τε κειμένην καὶ τῆς ἡπείρου, πολλοὺς τῶν Περσέων ἀπεβίβασαν, τοῦτο δὲ, ἐπειδὴ ἐγίνοντο μέσαι νύκτες, ἀνήγον μὲν τὸ ἀπ' ἰσπέρης κέρας κυκλοῦμενοι πρὸς τὴν Σαλαμῖνα, ἐνήγον δὲ οἱ ἀμφὶ τὴν Κέον τε καὶ τὴν Κυνόσουραν τεταγμένοι, κατεῖχόν τε μέχρι Μουνυχίης πάντα τὸν πορθμὸν τῇσι νηυσί.

GREEK—SENIOR CLASS

(SECOND YEAR HONOURS AND THIRD YEAR PASS.)

DEMOSTHENES AND GREEK HISTORY.

1. Translate into English, extracts from Demosthenes, Against Leptines.
2. Translate and comment upon the following passages—
 

(a) Ἐτι τοίνυν ἴσως ἐπισύροντες ἐροῦσιν, ὥς Μεγαρεῖς καὶ Μεσσηνιοὶ τινες εἶναι φάσκοντες, ἐπειτ' ἀτελεῖς εἰσιν ἄθροοι παμπληθεῖς ἄνθρωποι, καὶ τινες ἄλλοι ἐοῦλοι καὶ μαστιγῖαι, Λυκίδας καὶ Διονύσιος, καὶ τοιοῖτους τινὰς ἐξελεγμένοι.

(b) σκεψώμεθα δὴ τίνες ἡμῖν εἰσποιεῖ χορηγοὺς εἰς ἐκείνας τὰς λητουργίας, καὶ πόσους, ἂν μὴ τούτῳ προσέχωμεν, ἀφήσει. οἱ μὲν τοίνυν πλουσιώτατοι τριηραρχοῦντες αἰὲ τῶν χορηγιῶν ἀτελεῖς ὑπάρχουσιν, οἱ δ' ἐλάττω τῶν ἱκανῶν κεκτημένοι, τὴν ἀναγκαίαν ἀτέλειαν ἔχοντες, ἔξω τοῦ τέλους εἰσὶν τούτου· οὐκοῦν τούτων μὲν οὐδετέρων οὐδεὶς διὰ τὸν νόμον ἡμῖν προσέσται χορηγός.

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## GREEK HISTORY, 404—323 B.C.

*(Not more than FIVE of the following questions should be answered.)*

1. Sketch briefly the constitution of the second maritime confederacy of Athens, comparing it with the first.
  2. Give some account of political parties in Athens about 350 B.C.
  3. What is the significance in Greek history of the expedition and Retreat of the Ten Thousand?
  4. Discuss the policy of Epameinondas.
  5. What changes in tactics and conduct of war can be traced in your period?
  6. Estimate Demosthenes as a statesman.
  7. What were the terms of the Peace of Antalcidas? Discuss its significance in Greek History, and its immediate effect upon the principal Greek states.
  8. Explain the continued vitality of Athens as contrasted with the decay of Sparta during the fourth century B.C.
  9. What do you know of the following—Leosthenes, Porus, Harpalos, Gordion, Parmenio, Chabrias, Tegyra?
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## SENIOR FRENCH I. AND II.

The same papers as those set in the Second Year, with additional passages for translation from Balzac, Eugénie Grandet.

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## SENIOR GERMAN I. AND II.

The same papers as those set in the Second Year, with additional passages for translation from Tieck, Dichterleben.

DECEMBER EXAMINATION.

xlvi.

LOGIC AND MENTAL PHILOSOPHY.

PASS.

*Not more than SIX questions to be attempted.*

1. Show how ethical theories are determined by psychological presuppositions. Give historical references.
  2. "The end is always self-realisation." Explain and illustrate by reference to specific acts of will.
  3. What are the special characteristics of æsthetic feeling?
  4. How does religious feeling differ psychologically from moral feeling?
  5. What are the defects of the Stoic ideal?
  6. What are the main arguments in favour of Hedonism as a theory of ethics?
  7. How does the Utilitarianism of Mill differ from that of Bentham?
  8. "Man is not held responsible, because he is by birth a moral being; he becomes a moral being because he is held responsible" (*Riehl*). Discuss this statement in its bearing on the problem of human freedom.
  9. "Act so that the maxim of thy will can always at the same time hold good as a principle of universal legislation" (*Kant*). What is the practical value of this statement as a moral principle?
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LOGIC AND MENTAL PHILOSOPHY.

HONOURS I.

*Not more than FOUR questions to be attempted*

1. What do you consider to be the aim and scope of metaphysic?
2. Thought means simply the free play of the associative activities under central control.  
Discuss this statement, and illustrate by reference to the activity of attention.
3. Discuss the validity of the psychological distinction between egoistic and altruistic feeling.

4. Comment on each of the following statements—

(a) "A free will in the indeterminist sense is wholly inconceivable."

(b) "There is but one argument of real force against determinism; the immediate affirmation of consciousness in the moment of deliberate action."

5. Examine Spencer's account of the development of religion.

6. "Protestantism was a revolt against authority." "Protestantism merely displaced one authority by another authority."

Discuss these statements, and refer to the distinction made between authority in matters of science and authority in matters of faith.

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## HISTORY I.

### PASS.

*You are recommended to answer SEVEN questions (which must include question 1), and no more.*

1. Explain Milton's ideal of "a true warfaring Christian," and show, with especial reference to the "Areopagitica," how this ideal determined his views in respect to the political and ecclesiastical questions of his time.

2. Consider the following as types of Puritanism:—Sir John Eliot, Colonel Hutchinson, William Prynne.

3. "Require of Christians only to believe Christ."—(*Chillingworth*.)

Explain the influence of this idea in the seventeenth century.

4. What parts of the country, and what classes of people supported King and Parliament, respectively, in the Great Civil War? Discuss, from the military point of view, the elements of strength and of weakness in the armies of both sides.

5. What were the motives which induced the army leaders to put Charles I. to death?

6. "The new tyranny."

Discuss this criticism of Cromwell's rule as Protector.

7. "Nothing shows more completely how great a work the Long Parliament had done than a survey of the reign of Charles II."

Discuss.

8. What were the chief features of the "Settlement" established by the Revolution of 1688? Explain and illustrate the dangers which threatened the stability of this settlement during the reigns of William and of Anne.
9. What were causes of the outbreak of "the War of the Spanish Succession"? What were the chief consequences of this war?

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HISTORY II.

PASS.

*You are recommended to answer SEVEN questions (which must include question 10), and no more.*

1. "For more than thirty years the Whigs ruled England."

Discuss the reasons of this long tenure of power by the Whigs in the first half of the eighteenth century.

2. "The Methodists themselves were the least result of the Methodist revival."

Discuss.

3. Describe the character of William Pitt, Earl of Chatham. What were his great merits, and what were his defects as a politician?

4. What views as to "Party Government" were held by (a) George III., and (b) by Burke?

5. "I have no wish to deny that the Stamp Act was a grievance to the Americans; but it is due to the truth of history that the gross exaggerations which have been repeated on this subject should be dispelled, and that the nature of the alleged tyranny of England should be clearly stated."

Attempt a statement of the case of the British Government in the sense of the above passage.

6. Explain the importance of the events which took place, during the war of American Independence, in or in the neighbourhood of the following places—Boston, New York, Philadelphia, Saratoga, Charleston, Yorktown.

1.

### THIRD YEAR IN ARTS.

7. State briefly the events that led (a) to the formation of the Coalition Ministry of 1783, and (b) to the fall of that Ministry.
8. "He changed his front, but he never changed his ground."  
Was Burke's criticism of the French Revolution consistent with his previous political career?
9. Describe the political and economic condition of England in the year 1815.
10. What has Carlyle to say on the following subjects—Midas, the Sphinx, Morrison's Pills, Sir Jabesh Windbag, Hero Worship?
11. What parts were taken in the movement in favour of Parliamentary Reform by the following—Lord John Russell, Disraeli, Gladstone.
12. "The surprising feature in the English conquest of India is not so much that it should have been made, as that it should have cost England no effort and no trouble."  
What are the circumstances which explain the easiness of the conquest of India?

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### HISTORY I.

### HONOURS.

*You are recommended to answer not less than FIVE questions, and not more than SEVEN.*

1. "Milton was the last of the Elizabethans."  
"Milton was the genius of Puritan England."  
Discuss these two aspects of Milton's life and poetry.
2. "There was a time when it must have seemed possible that what we now call *administrative law* should become a permanent part of the English constitution."  
Explain.
3. "Whilst investigation shows that Cromwell was not an hypocrite, it also shows that it was the most natural thing in the world that other men should think him to be one."  
—(*Gardiner.*)  
Discuss this view.



4. "The dead-weight of the past was suddenly rolled away, and the new England heard at last and understood the call of Francis Bacon."

Discuss this aspect of the reign of Charles II.

5. Explain the constitutional interest of the Peerage Bill of 1719.

6. "The prosperity of one country was thought to be incompatible with that of another."

Explain and illustrate the historical consequences of this theory. Describe briefly the character of the criticism directed against it by Adam Smith.

7. "The essence of the industrial revolution is the substitution of competition for the mediæval regulations which had previously controlled the production and distribution of wealth."

Explain.

8. "Rights are certain advantageous conditions of social well-being, indispensable to the true development of the citizens, enjoyable by all members of the community, and of which we are prepared to say that respect for them ought (in one way or another) to be enforced."

Discuss this view.

9. Why are wages higher in America and England than on the Continent of Europe?

10. "I am exceedingly afraid of the ignorant multitude of the new constituencies."

Discuss, with special reference to Bagehot's opinions, the dangers which, it was feared, might be produced by the Reform Act of 1867. Have such fears, in your opinion, been justified by the event?

11. "Our constitution is a judge-made constitution, and it bears on its face all the features, good and bad, of judge-made law."

Explain.

12. "After 1846 the mission of the deductive method was fulfilled."

Explain Toynbee's meaning.

# FACULTY OF MEDICINE.

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## FIRST YEAR EXAMINATION.

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INORGANIC CHEMISTRY AND PRACTICAL CHEMISTRY;  
PHYSICS, BIOLOGY AND PRACTICAL BIOLOGY, as in  
the First Year of Science.

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PRACTICAL HISTOLOGY.—A PRACTICAL EXAMINATION.

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ANATOMY—(INTRODUCTORY).

1. Tell what you know of the development of the Heart.
  2. How is the placenta formed?
  3. Define the following terms:—
    - (a) Metanephros.
    - (b) Præcervical sinus.
    - (c) Corpus luteum verum.
    - (d) Processus vaginalis.
    - (e) Omphalo-mesenteric vein.
    - (f) Cutis-plate.
    - (g) Tuberculum impar.
    - (h) Meckel's diverticulum.
-

## SECOND YEAR EXAMINATION.

## CHEMISTRY—(ORGANIC).

1. On analysis 0.23 grammes of a Hydrocarbon gave 0.7639 grammes  $\text{CO}_2$  and 0.1952 grammes  $\text{H}_2\text{O}$ . What is its empirical formula?  
Its vapour density ( $\text{H}=1$ ) was found to be 53. What is the Hydrocarbon?
2. What is the action of nitrous acid upon the following substances?—
  - (a) Fatty amines;
  - (b) Aromatic amines;
  - (c) Amides;
  - (d) Nitro-paraffins.
3. Describe fully the reactions that take place between ammonia and ethyl iodide.  
How are the various products separated?
4. Explain the difference in constitution between nitriles and iso-nitriles. How are these substances prepared, and how do they react with caustic potash respectively?
5. How is the optical behaviour of the different Tartaric acids explained structurally?
6. Give the constitution and one method of preparation of the following substances—  
Iodoform, chloral, glycerine, salicylic acid, citric acid, sulphonal.
7. Give three general reactions for the preparation of the monohydric phenols.  
How do these substances differ from, and in what respects do they resemble the fatty alcohols?
8. Give examples of Hydrocarbons containing linked and condensed Benzene nuclei and show their constitutions.

## THIRD YEAR EXAMINATION.

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ANATOMY.

1. Give a full account of the gross anatomy of the Prostate gland; describe its position, its relations and attachments to surrounding structures, and its blood-vascular arrangements.
2. State the superficial and deep origins of the 3rd, 4th, 6th and 12th cranial nerves, and mention the muscles supplied by each.
3. Describe the course and relations of the three parts of the internal maxillary artery. Enumerate the branches given off by each part.
4. State the boundaries of Hunter's canal. Mention its contents and their mutual relations.
5. Give a full description of the sternum.

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PHYSIOLOGY.

*FIVE questions only to be attempted.*

1. The human colourless blood corpuscles. Write an account of their
  - (a) Structure;
  - (b) Chemical composition;
  - (c) Varieties;
  - (d) Origin;
  - and,
  - (e) Fate.
2. Bile.
  - (a) State approximately its composition.
  - (b) Where and how are its chief constituents formed?
  - (c) What is the ultimate fate of these constituents?

(d) What physiological purposes are served by bile, and what effects might you expect to follow in a case of complete obstruction of the common bile duct?

3. Uric Acid.

(a) What are its chemical relationships?

(b) What conditions lead to its increased excretion?

(c) What can be said as to the mode of its formation?

Hippuric Acid. How and where is this substance probably formed? State the evidence on which your answer is based.

4. What evidence may be derived from experimental and other study of the sub-maxillary salivary gland with regard to the intimate phenomena of secretion generally? Mention the facts on which is based the statement that secretion is an active process of the epithelial cells and is not dependent on a mere physical filtration.

5. Describe three marked cases of inhibition, giving in each case a clear account of the mechanisms involved.

6. (a) Describe the different experimental methods by which various nerve tracts in the central nervous system have been differentiated.

(b) Trace, in brief outline, the specific anatomical tracts by which sensory impulses arising in the limbs may reach the cerebral cortex.

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MATERIA MEDICA.

1. In what way may the action of the heart be influenced by baths (thermic and medicated), strychnine, amyl nitrite, and atropin respectively?

2. Compare the actions of Salicin, Salicylic Acid, Salicylate of Soda, and Oil of Wintergreen administered internally and externally.

3. Senna.—State the Botanic Source of this, and the chief active principles. Give two preparations containing it, with the other ingredients present in them.

Prescribe Quinine in some form such as will cover the taste, giving all the ingredients of the preparation and their quantities in full in Latin, with instructions to the patient in English.

4. What official substances are obtained from the genus *Eucalyptus*? What do you know of their composition? State very shortly what you know of substitutes for one or other of these and how they may vary from the official form or forms.
  5. Sulphur.—Describe the Pharmacological actions which this may have when applied externally or given internally.
-

## FOURTH YEAR EXAMINATION.

### PATHOLOGY.

1. Discuss the ætiology of thrombosis.
2. Give a full account of the local and general phenomena of suppuration.
3. Describe the macroscopic and microscopic appearances of the various forms of tubercular disease of the lungs.
4. Give an account of the bodies that may be developed in the blood serum in the course of an infection by typhoid bacilli. Discuss their relation to the progress of the infection. Explain their use, and estimate their value in the prevention and diagnosis of typhoid fever.

### OPERATIVE SURGERY AND SURGICAL ANATOMY.

1. Describe the "Radial" operation for Cancer of the Breast. Mention the structures removed and the structures exposed by the operation.
2. Describe the Superficial Fascia of the Perineum and the lower part of the abdomen, and explain its influence on the course of extravasated urine.
3. *Mastoid Antrum*.—Describe its position and its relation to the various surgically important structures in its immediate vicinity.
4. *Septum Nasi*.—Describe its component parts, and give its nerve and blood supply.
5. *Varicose Veins*.—Describe the venous system of the lower extremities in so far as it affects the causation and treatment of varicose veins.

## FIFTH YEAR EXAMINATION.

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MEDICINE.

1. Describe the symptoms, physical signs, and course of Broncho-pneumonia in a child. Discuss the diagnosis and treatment.
2. Discuss the clinical features and the differential diagnosis of hydatid disease of the liver.
3. Discuss the clinical forms, diagnosis and treatment of gout.
4. Enumerate the forms of muscular atrophy (dystrophy). Describe fully the usual symptoms of Progressive Muscular Atrophy in its different forms, and discuss the diagnosis of this disease.

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SURGERY.

1. Describe the pathology, symptoms, and treatment of the different kinds of inflammation of the Bursa Patella.
2. Write all you know of Osteitis Deformans.
3. Fracture of the Lower End of Humerus:—Give varieties, causes, symptoms, and treatment of each variety.
4. Erysipelas following wounds:—Description, pathology, diagnosis, prognosis, according to locality and treatment.
5. Epithelioma of Larynx:—Treatment (*a*) when confined to one vocal cord, (*b*) when attended with external swelling. Describe operation for total extirpation without tracheotomy.

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MIDWIFERY.

## TWO HOURS.

1. Describe the causes, diagnosis, and treatment of Accidental Hæmorrhage.



## DECEMBER EXAMINATION.

ix.

2. Give the nomenclature and positions of the Shoulder Presentations, and describe fully—
  - (a) The most frequent form.
  - (b) The least frequent form.
  - (c) The treatment of each.
3. Describe the chief methods of Inducing Labour, and the conditions which call for this mode of treatment.

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## GYNÆCOLOGY.

TWO HOURS.

*THREE questions only to be answered.*

1. Describe the signs and symptoms of Carcinoma of the Cervix in an early stage, and the means you would adopt for ascertaining the advisability of radical operation. Give the pathology of the disease, with its mode of progress and extension.
2. Give the pathology, causation, physical signs, results, and treatment of Pelvic Cellulitis or Parametritis.
3. Give the course and relations of the Ureter from Bladder to Pelvic brim. How is it affected in cases of Fibroids growing in the Broad Ligament, and in cases of Carcinoma? Give a diagram of the Uterus in its normal position, with the Bladder attached, and the Urethra in its whole course.
4. Describe, by diagram, the various degrees of Prolapse of Uterus. Give fully the causes, signs, symptoms and treatment.

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## MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.

TWO HOURS.

1. What are the chief criteria of age in the dead body between the 6th month of intra-uterine life and the second year after birth?
2. Describe the mode of examining the chest in a supposed case of infanticide. Upon what data would you rely for live or still birth?

lx.

## FACULTY OF MEDICINE.

3. What are the symptoms during life, and the post mortem signs of acute and chronic arsenical poisoning?
4. What infectious diseases in human beings are required by law to be notified in New South Wales? Mention the acts which require notification, and state to whom notification must be made in each case.
5. What is meant by the terms "superheated steam" and "saturated steam"? Which of these forms is most valuable in disinfection, and why?
6. Briefly summarise the evidence connecting the epidemic prevalence of plague with the existence of epizootic plague among rats, as observed in the first epidemic of plague in Sydney.

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## OPHTHALMIC MEDICINE AND SURGERY.

TWO HOURS.

1. Give the etiology, signs, symptoms, complications, sequelæ, and treatment of gonorrhœal ophthalmia.
2. Describe briefly the following:—Mixed astigmatism; irregular astigmatism; conical cornea; pannus; synechia; hypopyon lamellar cataract; aphakia; posterior staphyloma.
3. What is the most common form of intra-ocular tumour found in the adult? Give its symptoms, signs (ophthalmoscopic or other), diagnosis, prognosis and treatment.
4. What do you understand by "ocular headache"? Explain its production and treatment.

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## PSYCHOLOGICAL MEDICINE.

TWO HOURS.

1. Give the symptoms and treatment of Acute Alcoholic Insanity.
2. Classify and describe briefly the Stuporose states, giving their ætiology and treatment.
3. Mention the various types of morbid impulse met with in the insane.
4. Enumerate the different types of Idiocy.
5. What symptoms occurring during an acute attack of mania would lead you to give an unfavourable prognosis as to recovery?

# DEPARTMENT OF DENTISTRY.

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## FIRST YEAR EXAMINATION.

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### ANATOMY AND DENTAL ANATOMY.

1. Describe—
    - (a) a typical vertebra,
    - (b) a typical rib.
  2. Describe the outer wall of the nasal fossa of the skull.
  3. Define the following—
    - (a) Diarthrodial joint,
    - (b) Aponeurosis,
    - (c) Synovial membrane,
    - (d) Posterior nasal spine,
    - (e) Genial tubercle.
    - (f) Schreger's lines,
    - (g) Dentinal sheath,
    - (h) Heterodont,
    - (i) Dental lamina,
    - (k) Adamantoblast.
  4. Give an account of those characters which distinguish the milk teeth from the permanent teeth.
  5. Tell what you know of the process of tooth-eruption.
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INORGANIC CHEMISTRY AND PHYSICS, as in the First Year of Science.

PRACTICAL CHEMISTRY AND METALLURGY, a three hours' examination.

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## SECOND YEAR EXAMINATION.

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PHYSIOLOGY.

*FIVE questions only to be attempted.*

1. (a) Enumerate the various forms in which energy is manifested in the living body.  
(b) Show how the animal body obtains its energy ultimately from the vegetable kingdom.  
(c) By what means is potential energy liberated to become kinetic or active in the living body?
2. (a) Enumerate the various forms of the connective tissues.  
(b) Describe the microscopical structure of dentine.  
(c) Compare the chemical and physical properties of bone and dentine and enamel.
3. (a) Describe the microscopical structure of striped muscle.  
(b) Describe the various phenomena which accompany muscular contraction.
4. (a) Describe the nerve mechanism concerned in the formation of submaxillary saliva.  
(b) Compare saliva with pancreatic juice in composition and action.
5. (a) How are the various constituents of the urine secreted by the kidney?  
(b) How are the actions of the skin and kidney correlated?  
(c) What is the use of the sebaceous secretion?
6. (a) What is the form of the glottis in (1) tranquil respiration, (2) forced inspiration, (3) phonation?  
(b) What is the essential factor in voice production as to (1) loudness, (2) pitch, (3) quality?  
(c) How does the chest voice differ from the head voice?

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ANATOMY AND DISSECTIONS—A PRACTICAL EXAMINATION.

THIRD YEAR EXAMINATION.

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PHYSIOLOGY.

*Five questions only to be attempted.*

1. Tooth—

- (a) Describe the microscopical structure of a tooth, giving diagrams where possible.
- (b) Show how a tooth is developed.
- (c) In what different ways do temporary teeth differ from permanent teeth?

2. Nerve Fibres—

- (a) Describe the microscopical structure of a white nerve fibre.
- (b) What is the relation structurally and functionally of a nerve fibre to a nerve cell?
- (c) Enumerate all the different kinds of nerves from the point of view of function.

3. Respiration—

- (a) Describe the microscopical structure of an air passage from the bronchiole onwards to the lung, including both of these parts.
- (b) Describe the nerve mechanisms by which the rhythm of tranquil respiration is maintained.

4. Alimentary Canal—

- (a) Describe the structure of the tonsils.
- (b) What is the composition of mixed saliva? How do the secretions of the different salivary glands differ from each other?
- (c) Describe fully the action of the bile in the digestive processes.

5. (a) Describe the act of walking.

- (b) Describe the act of Micturition.

6. (a) Enumerate the various things that happen from the time a luminous vibration falls upon the cornea until the sensation of light arises in consciousness.
- (b) What is the essential feature in Myopia or Short Sightedness? How may the condition be corrected?
- 

## SURGERY.

1. Give the symptoms, pathology, and treatment of a case of Actinomyces of the Lower Jaw.
  2. Give Dupuytren's classification of Burns.
  2. Give the causes, symptoms and treatment of Acute Septicæmia.
  4. What methods might be found useful in arresting hæmorrhage after the extraction of a tooth?
- 

## MATERIA MEDICA.

1. What do you know of the influence of age and of habit in modifying dosage?
  2. Aconite.—What do you know of the local and general action of this drug (used in the form of Tincture for example).
  3. Contrast as Caustics: Nitric Acid, Caustic Potash, Chloride of Zinc, and Nitrate of Silver. Explain their mode of action in each case.
  4. Sketch the effects of Nitrous Oxide Gas when used as an anæsthetic. What, if any, harmful effects are liable to attend its use?
  5. Prescribe a tooth powder containing three ingredients at least, and including one antiseptic and one astringent, giving the directions to the chemist in full in Latin, and those for the patient in full in English.
- 

## PATHOLOGY.

1. What are the characteristics of a simple and of a malignant tumour? Name the malignant tumours that may grow within the mouth, mention their chief sites, and describe their macroscopic and microscopic appearances.

2. Give a full account of the local and general phenomena of suppuration.
3. Enumerate the more important pyogenic bacteria, describe their microscopic characters, and indicate the lesions with which they are specially associated.
4. Explain the terms "infection," "intoxication," and "immunity." Compare and contrast the mode of action of tetanus and typhoid bacilli.

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MECHANICAL DENTISTRY.

1. How would you be guided in selecting material for an impression? Give the advantages and disadvantages of those most commonly used.
2. How would you make a fusible alloy trial plate, and what are its merits and demerits?
3. How would you make a partial upper vulcanite plate, to replace teeth lost on one side from the lateral to third molar inclusive?
4. How would you replace a tooth on a vulcanite plate that had been broken off several times in the stress of mastication?
5. What is the best model to make a celluloid plate upon, and why?
6. What do you understand by the "new continuous gum process," and how is it performed?
7. When can an obturator be used for congenital cleft of soft palate? Describe the obturator.
8. What appliance would you use in a case of a syphilitic breach extending from the posterior one-third of hard palate to the uvula, which had sloughed away?

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SURGICAL DENTISTRY I.

CROWN AND BRIDGE WORK.

1. Given a molar—roots previously filled, buccal wall broken below the gum margin, gum tissue extending into the cavity—describe its preparation for a hollow metal crown.
2. Detail the construction of a full band 1st bicuspid crown, using a saddle-back tooth.

3. How would you repair in the mouth a broken incisor facing?
4. How would you treat a perforated central root?

OPERATIVE DENTISTRY.

1. (a) Do you consider a "step" or a post cemented into the root canal the stronger form of anchorage in a devitalised tooth, with a cavity involving the incisal edge? (b) If a post be used, as above, what future disadvantage may the presence of the post possess?
2. (a) How do you ensure the maintenance of the normal interproximal space and contact point when it becomes necessary to fill approximal cavities? (b) What considerations make it important to preserve this space and this normal contact point?
3. In what cavities, and in what portions of cavities do you consider the use of non-cohesive gold advantageous, and why?

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SURGICAL DENTISTRY II.

1. What conditions of the mouth may cause foetor of the breath? Give your treatment in each case.
2. What are the possible effects of acute specific fevers on the developing teeth and the jaws?
3. How would you treat an abscess in connection with a second bicuspid which had opened into the antrum? Give your reasons for the treatment.
4. What symptoms may arise from an unerupted canine? How would you diagnose the condition, and what treatment would you adopt?

"ORTHODONTIA."

1. What considerations guide you in deciding as to the advisability of attempting to correct an irregularity?
2. Mention the chief drawbacks to the use of a plate as a means of correcting irregularities.
3. What common form of appliance do you consider enables you to exert the greatest force in moving teeth?
4. If a "Magill" band be used on an anchor tooth, how can you make your attachment to same so as to best prevent the tooth "tipping"?



## FACULTY OF SCIENCE.

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### FIRST YEAR EXAMINATION.

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#### INORGANIC CHEMISTRY—(NON-METALS).

1. What volume of carbonic acid gas, measured at  $0^{\circ}\text{C}$ . and 760 mm., is obtained by the action of hydrochloric acid upon 50 grammes calcium carbonate? What will be its volume at  $22^{\circ}\text{C}$ . and 740 mm.?

$\text{Ca}=40$       $\text{C}=12$       $\text{O}=16$ .

1000 cc. hydrogen weigh .089 grms. at  $0^{\circ}\text{C}$ . and 760 mm.

2. How is chlorine gas prepared? For what industrial purposes is it used, and what are its general properties?
  3. Illustrate the law of multiple proportions with reference to the oxides of nitrogen.
  4. What is the meaning of the following terms:—Equivalent, allotrope, valency, atom, molecule?
  5. Describe an experiment by means of which you would prove the composition by volume of hydrochloric acid gas.
  6. What is combustion? Describe the structure of a candle-flame, and the nature of its different parts.
  7. What is the composition of the atmosphere? How would you demonstrate experimentally whether the atmosphere is or is not a chemical compound?
  8. What do you know of the compounds of hydrogen with nitrogen and phosphorus?
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#### CHEMISTRY—(METALS).

1. What is a solution? What is the difference between a solution of a substance such as sugar in water, and a

solution of a salt such as common salt in water? Explain the Ionization Theory of solution, giving the nature of the experiments upon which it was originally founded, and with its aid explain briefly some of the phenomena peculiar to substances in solution.

2. Explain briefly how the atomic weight of an element can be determined from the analysis of its compounds, together with a determination of either (*a*) the vapour density of the element or its compounds, or (*b*) the specific heat of the element.

6.3 grams of the sulphate of a metal are found on analysis to yield 1.5 grams of the oxide of the metal.

The vapour density of the chloride is found to be 41. Calculate the exact atomic weight of the metal.  $S=32$ ,  $O=16$ .

To which group in the Periodic Table would the metal probably belong? Give reasons for your answer.

3. What are the three principal naturally-occurring compounds of sodium used in large quantities? What are their chief uses? Give an outline of the method of preparation of sodium hydrate from the naturally-occurring compound, (*a*) by an old process, (*b*) by a modern electrical process. Give equations, and point out any advantages of the latter process.
4. Give two examples of common alloys, and explain the advantages of each alloy over its constituents. To what class of substances, *i.e.*, mixtures, compounds, etc., are alloys supposed to belong? Give reasons for your answer.
5. Give a rough sketch of (1) a reverberatory furnace, and (2) a blast furnace. Point out the essential differences between them. Give an example of the use of each kind of furnace in the extraction of a metal from its ores.
6. Name the metals belonging to the following groups:—(*a*) Alkalies, (*b*) alkaline earths, (*c*) earths, and (*d*) noble metals. Describe those properties of each group from which the name of the group is derived.
7. Compare the properties of the oxides, salts, and ions of an essentially metallic element like calcium with those of a metal (other than arsenic) which somewhat resembles a non-metal in its compounds.

8. What are the principal naturally-occurring compounds of lead? How is lead extracted from these compounds? Briefly describe the preparation of the paint "white lead," and point out the "catalytic" nature of the process.

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PRACTICAL CHEMISTRY—FOUR HOURS.

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PHYSICS.

PASS, HONOURS AND SCHOLARSHIPS.

1. Describe the construction of any form of mercurial barometer, and explain fully how the pressure of the air may be accurately determined in dynes per square centimetre.
2. Explain how it is that the temperature of water falls if placed in a canvas bag surrounded with warm dry air. How is the effect modified in wet weather?
3. Describe phenomena in acoustics and optics which lead us to consider that the disturbances which give us the sensations of sound and light are undulatory in character, giving the argument in detail.
4. Explain how dispersion may be obtained without deviation of the mean ray as in a direct vision spectroscope, and how deviation may be obtained without notable dispersion as in an achromatic system of lenses.
5. Draw a diagram showing the position, relative to the principal Fraunhofer lines, of the absorption bands in the absorption spectrum of an aqueous solution of permanganate of potash. The Fraunhofer lines are to be shown and lettered.
6. The motion of a point is compounded of two simple harmonic motions of the same period at right angles to each other; describe the possible motions of the point. Show how a description of some of the simpler phenomena connected with the passage of light through crystals may be given in terms of the results of such compounded harmonic motion.
7. Explain how a measurement of the strength of an electric current may be made with a tangent galvanometer. Explain how the value of the reduction factor of the instrument may be found.

8. Describe Faraday's experiments on electromagnetic induction. Explain what is common to the various experiences, and show how a description of all the phenomena may be given in a simple statement.

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BOTANY.

*Illustrate your answers with diagrams.*

1. Describe the structure and development of *Volvox*. Discuss its relationships.
2. Describe the sporophore of *Penicillium*, *Mucor* and *Agaricus*.
3. Give an account of the structure and life-history of one of the true Mosses (*Musci*).
4. Describe the vascular system of *Pteris* and of *Pinus*.
5. Enumerate and describe the leading types of dry dehiscent fruits, and give examples of each.
6. Give an account of geotropism.
7. Explain the following:—(1) Nyctitropic movements, (2) katabolism, (3) protandrous flowers, (4) plasmodium, (5) meristem.

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PRACTICAL BOTANY—THREE HOURS.

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ZOOLOGY.

*Illustrate your answers with diagrams.*

1. Give a general account of the *Infusoria*, with a special description of *Paramecium* and of *Vorticella* or *Carchesium*.
2. Compare the structure of *Obelia* with that of a Sea Anemone.
3. Give a general account of the Holothuroidea.
4. Describe the respiratory system in *Peripatus*, in the Scorpions, and in the Lobster.
5. Describe the structure of the eye of the Vertebrata, and its general development in the embryo.
6. Describe and represent in a diagram the general relations of the parts, with the contained cavities, in the brain of the *Craniata* in general.

7. Describe the structure of the unincubated egg of a Bird. Give a brief account of the changes which lead to the establishment of the rudiments of the spinal column, the nervous system, and the body-cavity.

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PRACTICAL ZOOLOGY—THREE HOURS.

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PHYSIOGRAPHY.

1. What are the chief factors which control the climate of the Southern Hemisphere? Explain why anticyclones move from west to east.
2. Explain, and illustrate with sketches to show their structure, the nature of the reefs that would form on a typical volcanic submarine bank under the following circumstances:—(a) Atoll subsides for depth of 1000 feet without drowning the reef-forming organisms. (b) The same atoll grows under stationary conditions of earth's crust for a prolonged period. (c) The same atoll is raised in successive uplifts, with considerable time interval between them, 100 feet, 300 feet, and 600 feet. Make the scale approximately 500 feet to 1 inch.
3. What were Darwin's views as to the relation to one another of the eruptive magmas of the earth's crust? How would you account for the basic character of the eruptions emanating from subsidence areas?
4. What is the nature and origin of meteorites? What is meant by the meteoritic theory of the origin of the world? What evidence is there for or against this theory?
5. Describe the geology of Sydney and the Blue Mountain area, illustrating your answer with sketch sections.
6. What evidence does Australia or Tasmania afford of past ice ages? Mention any explanations of them which may suggest themselves to you.
7. Review the evidence as to the nature and origin of River Drift Man, Palæolithic Cave Man, and Neolithic Man.
8. What support is given to the theory of evolution by the evidence of the development and succession of animal and plant life in geological time?

**ELEMENTARY ANALYTICAL GEOMETRY AND DIFFERENTIAL  
CALCULUS.**

TWO HOURS.

1. Prove that the equation of the line joining the points  $(x_1, y_1)$   $(x_2, y_2)$  is

$$\frac{x-x_1}{x_1-x_2} = \frac{y-y_1}{y_1-y_2}.$$

Write down the equations of the sides of the triangle ABC when A, B, and C are the points (1, 2), (3, 4), (5, 1).

2. Prove that the lines

$$\begin{aligned} y &= mx + c \\ y &= m'x + c' \end{aligned}$$

intersect at an angle  $\theta$ , where  $\tan \theta = \frac{m-m'}{1+mm'}$ .

Find the equation of the line which passes through  $(a, b)$  and is perpendicular to

$$lx + my = n.$$

3. Prove the rule for differentiating the product of two functions of  $x$ .

If  $f(x) = (x-a)^2 \phi(x)$ , shew that  $\frac{df(x)}{dx}$  vanishes for  $x=a$ .

4. Find, from the definition, the differential coefficients of  
(i.)  $x^n$ , (ii.)  $\sin mx$ , (iii.)  $e^{nx}$ .

5. Differentiate the following expressions :—

- (i.)  $\frac{(a-x)^m}{(b-x)^n}$   
(ii.)  $x(a^2-x^2) \sqrt{a^2+x^2}$   
(iii.)  $e^{-x}(\sin x + \cos x)$   
(iv.)  $\frac{1}{\sqrt{a^2-b^2}} \sin^{-1} \left( \frac{b+a \cos x}{a+b \cos x} \right)$   
(v.)  $\log \left\{ \frac{b+a \cos x + \sqrt{b^2-a^2} \sin x}{a+b \cos x} \right\}.$

6. A vessel is anchored in 10 fathoms of water and the cable passes over a groove in the bow which is 12 feet above the water. If the cable is hauled on board at the rate of 1 foot a second, how fast is the boat moving through the water when there are 20 fathoms of cable out?

[1 fathom = 6 feet.]

7. Find the equation of the parabola from its definition as the locus of a point which moves so that its distance from a fixed point is equal to its distance from a fixed straight line.

A is the vertex of the parabola whose focus is S. PSQ is a focal chord and PM, QN are the perpendiculars from P and Q to the axis AS. Prove that  $AM \cdot AN = AS^2$ .

8. Obtain the equation of the tangent at  $(x_1, y_1)$  to the ellipse  $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ .

P is any point on an ellipse whose centre is C. The tangent at P meets the major axis CA in T and PN is the perpendicular to this axis. Prove that  $CN \cdot CT = CA^2$ .

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## LOGARITHMS AND GRAPHICAL ALGEBRA.

TWO HOURS.

*(Candidates must show proficiency in both Part I. and Part II)*

### PART I.

1. Define the logarithm of a number to a given base, and state what are the practical advantages of taking 10 as the base of a system of logarithms.

Explain how it is that  $\log(a^3) = 3 \log a$ , and state the general theorem of which this is a special case.

Using the tables provided, find the value of the fifth root of 1.125.

2. Obtain an expression for  $\tan \frac{A}{2}$  in terms of the sides, suitable for logarithmic calculation.

Find the largest angle of the triangle whose sides are 25.17, 34.06, and 22.17 feet.

3. The sides  $a$  and  $b$  of the triangle ABC are 130 feet and 63 feet, and C is  $42^\circ 15'$ . Find the remaining angles and sides.

4. P and Q are two stations 1000 yards apart on a straight stretch of seashore, which bears E and W. At P a rock bears  $42^\circ$  West of South; at Q it bears  $35^\circ$  East of South. Show that the distance of the rock from the shore is  $1000 \frac{\sin 48^\circ \sin 55^\circ}{\sin 77^\circ}$  yards, and calculate this distance to the nearest yard.

PART II.

5. What is meant by the expression "the graph of a function  $f(x)$ "?

Draw the curves

$$y = \pm \sqrt{x}$$

$$y = \pm x$$

$$y = \pm \sqrt{x^3}$$

for values of  $x$  between  $-4$  and  $4$ , using the tables of square roots if desired.

6. Plot

$$3x + 8y = 1.7$$

$$4x - y = 1.1.$$

Find graphically and algebraically the point where they intersect; and write down the angle (degrees, minutes, seconds) each makes with the axis of  $x$ .

7. Discuss algebraically the question of the maximum or minimum value of the expression

$$40x - 4x^2 - 97,$$

and give a rough drawing of the curve

$$y = 40x - 4x^2 - 97.$$

8. Give a rough drawing of the curve

$$y = x^3 - 3x$$

with the aid of the differential calculus, if desired.

STATICS AND DYNAMICS.

THREE HOURS.

1. Describe from your own experience a case in which a body has two independent velocities in two different directions simultaneously.

A steamer is steaming due west at 12 miles an hour. A wind squall strikes it with velocity 25 miles an hour from direction south-west. What is the apparent magnitude and direction of the wind squall?

2. Prove the equations for uniformly accelerated motion in a straight line.

Prove that when a constant force acts on a particle the change in the kinetic energy is equal to the work done by the force.



3. If the time of sliding down a smooth inclined plane is double the time of falling vertically through the height of the plane, find the inclination of the plane.
4. Find the resultant of two like parallel forces. A uniform rod 4 feet long weighs 8 lbs. : weights, 3 lbs., 5 lbs., 7 lbs., 9 lbs., are hung from one end, and at points 1, 2, and 3 feet from that end. About what point will the rod balance?
5. On the side AB of a square ABCD a right-angled isosceles triangle VAB is described, its vertex being in the square. E, F and G are the middle points of AD, DC, and CB respectively. Find the C.G. of the figure EFGBVA.
6. AB is a smooth inclined plane of gradient 1 in 10. A mass of 5 lbs. is connected by a string which passing over a smooth pulley at the top of the plane carries a mass of 2 lbs. hanging freely.

Does the mass 5 lbs. move up or down the plane? What is its acceleration? How long will it take to move over 12 feet from rest on the plane? What velocity will it acquire in traversing this distance?

7. State Newton's experimental law with regard to velocity before and after the collision of bodies.

A mass of 1 lb. moving with velocity 10 feet per second collides with a mass of 10 lbs. at rest. After the collision the 1 lb. mass is moving *backwards* with a velocity of 4 feet per second.

Find the coefficient of rebound, and the velocity of the 10 lb. mass.

8. Explain clearly the difference between Momentum and Force; also between Energy and Power.

A train of 150 tons is pulled by the engine at 45 miles an hour on the level : the resistances are 18 lbs. weight per ton. Find the horse-power of the engine.

## SECOND YEAR EXAMINATION.

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BIOLOGY I.

1. Give an account of the *Dinoflagellata* and of the *Cystoflagellata*.
2. Describe the principal modifications of the digestive system in the *Turbellaria* and in the *Nemertinea*.
3. Give a general account of the structure of the Ectoproct *Polysoa*.
4. Describe the structure of one of the *Sipunculoidea*.
5. Give an account of the structure and life-history of the *Rhizocephala*.
6. What are the leading modifications (*a*) in the structure of the gills, (*b*) in the foot, in the main groups of the *Pelecypoda*.

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BIOLOGY II.

1. Discuss the experimental evidence bearing on the question of the localisation of irritability to gravity in the root.
2. Give a general account of the phenomena connected with the excretion of water in the form of liquid in plants.
3. Describe in detail how you would proceed to demonstrate experimentally
  - (*a*) circumnutation;
  - (*b*) intra-molecular respiration;
  - (*c*) the translocation of carbohydrates;
  - (*d*) negative heliotropism in roots;
  - (*e*) that diaheliotropism is the result of a specific sensitivity.
4. Describe the excretory system of *Hirudo*.
5. Give a brief account of either (*a*) the *Scaphopoda*, or (*b*) the *Myzostomida*.
6. Describe the excretory and reproductive systems of the *Cephalopoda*.

## PHYSICS I.

## PASS.

*Six questions to be attempted.*

1. (a) Indicate how the moduli of compressibility and rigidity enter into Young's modulus for an isotropic solid. (b) What is known as to the flow of solids? (c) What are isostatic curves and conjugate systems of deformation in solids submitted to stress?
2. Write a note on modern conceptions of the constitution of matter.
3. (a) Give an indication of the flow of heat in an anisotropic solid of three thermal axes, the surfaces of the solid being inclined to the axes. (b) How can the rate of flow be measured? (c) Briefly explain how the rate of conduction, convection, and radiation of heat may be measured.
4. (a) Give some indication of what is known as to the variation of the elastic properties of solids, with changes of temperature. (b) If two metals behave dissimilarly in regard thereto, could that be accounted for by an assumption of difference in the variations of the compressibility and rigidity, and if so why?
5. (a) Describe the behaviour of a bar of material under tensile stress; and (b) give an account of the phenomena of residual elasticity.
6. (a) Give some account of the significance of Berthelot's and Stohmann's work on the theory of the heat of combustion. (b) How has it been shown that the method of union of the atoms affects the heat of combustion?
7. (a) How may the absorption by different substances of the various rays in the spectrum be studied? (b) What general laws as to colour of substances were indicated by Schütze and by O. N. Witt? (c) What part does the azo-group in azo-derivatives play as regards colour, and when is the influence of a chromophore the greatest?
8. Give a brief account of the theory of dissociation of a chemical compound, referring to Pebal and Strauss' work, and to change of colour as an indication of dissociation.
9. (a) How can the refractive index of a mixture be found, if the refractive indices of its constituents be known? (b)

What physical properties of chemical substances are additive? (c) What part does the union of atoms in a molecule play in regard to physical properties?

10. (a) Give an account of the theory of osmotic pressure, (b) or of electrolysis.

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PHYSICS II.

PASS.

1. Explain fully how the fundamental results in electrostatics are modified in the case of dielectrics other than air.
2. Give an account, with full theoretical and practical detail, of any method by which the magnetic properties of soft iron may be found, describing the general character of the results to be anticipated, and explaining the meaning of any magnetic terms used in your description.
3. Show how a complete system of units is formed from an electrostatic basis, and also from a magnetic one. Explain fully any statement you use to connect electric and magnetic quantities.
4. Explain fully the meaning of the coefficients of self and mutual induction, pointing out the importance of the concepts, and showing how their values may be determined in any special cases.
5. Describe fully how standards of electrical quantities may be established in a laboratory, and state the accuracy that may be expected.

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GEOLOGY.

1. Describe the general systematic method of identifying an unknown mineral in a thin section of a rock under the microscope. State what you consider to be the most convenient order in which to test the several properties of the mineral, and to apply them to its determination.
2. Illustrate with sketch sections and describe any developments of the Permo-Carboniferous System with which you are acquainted, such as the sections near Gerringong or Pokolbin. State how you would determine the relative ages of the formations represented, and what conclusions you would form as to the physical conditions under which they were formed.

3. In what order do minerals usually crystallize out in various typical plutonic rocks? Quote a few examples. What connection has the law which governs this order of crystallization of minerals from a magma with the principle of the differentiation of rock magmas in plutonic reservoirs?
4. If a boss of granite intrudes successively limestones, carbonaceous shales, ferruginous shales, basic tuff and augite-andesite, what rocks and minerals may result along the line of contact?
5. By what various types of evidence can subsidence be proved to have occurred along a coast line? Illustrate your answer with sketches.
6. Suess has shown that the folds of the earth's crust are mostly asymmetrical rather than symmetrical, and that most of the great folds face the Pacific Ocean, but are directed away from the Atlantic Ocean. Explain and illustrate this.
7. Explain carefully, and illustrate with sketches, the various types of lake basins. Why are the greatest lakes, the highest mountains, and greatest rivers of the world comparatively young?
8. What are the chief fossils which are characteristic of the Carboniferous and of the Permo-Carboniferous strata, respectively, in New South Wales? To what cause may the sharp break in the palæontological succession from the Carboniferous to the Permo-Carboniferous be due?

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MINERALOGY.

1. What various sulphides may form in fissure veins as the result of the process known as "secondary enrichment," and through what chemical reactions may they be produced?
2. What are the principal ores of manganese, and what is their mode of occurrence and origin?
3. Account for the frequent association of tinstone with topaz, fluor spar and tourmaline, explaining what light this throws upon the mode of origin of tin deposits. Mention any other minerals whose association with one another implies also genetic relationship.

4. What is the meaning and possible cause of radio-activity in minerals? Mention any minerals which have been proved to be radio-active.
5. Account for the frequent association of lead and zinc ores with limestone, of gold deposits with black pyritous slates, and of nickel chromium and platinum with peridotites.
6. What is bauxite (beauxite), and what is its mode of origin? What other aluminium minerals are of commercial importance? Account for the occasional presence of free corundum in eruptive rocks.
7. Describe briefly the most important metallic silicates. Explain their mode of origin in ore deposits, distinguishing between those which are of primary and those which are of secondary origin.
8. Explain a graphic method of showing the variation in hardness of minerals according to the direction in which their hardness is tested by scratching. Give examples.

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### DIFFERENTIAL AND INTEGRAL CALCULUS.

THREE HOURS.

1. Explain what is meant by a limit, and illustrate by a geometrical or physical example.  
Differentiate (i.)  $a^x$ , (ii.)  $x \sin x$  from the definition of the differential coefficient.
2. Prove the rule for differentiating the product of two functions, and explain what is meant by logarithmic differentiation.  
Differentiate with regard to  $x$ ,
  - (i.)  $\sqrt{\frac{x^3 - a^2x}{x^2 - 4a^2}}$ .
  - (ii.)  $\tan^{-1}\left(\frac{1 + \tan^2 \frac{x}{2}}{2}\right)$ .
  - (iii.)  $\log\left(\frac{b + a \cos x + \sqrt{b^2 - a^2} \sin x}{a + b \cos x}\right)$ .
3. If  $y = \log(\sqrt{x-1} + \sqrt{x+1})$ , prove that  $(x^3 - 1)\frac{d^2y}{dx^2} + x\frac{dy}{dx} = 0$ .

4. Find the equation of the tangent at  $x=y=a$  to the curve  $x^3+y^3=2a^3$ , and deduce that this curve touches the circle  $x^2+y^2=2a^2$  at that point.

Show also that the sum of the squares of the intercepts made by any tangent to this curve on the axes of  $x$  and  $y$  is constant.

5. Show that a function  $y$  of  $x$  will be a maximum for a value of  $x$  which makes  $\frac{dy}{dx}=0$  and  $\frac{d^2y}{dx^2}$  negative.

An open tank is in the form of an inverted cone. Given the area of the surface of the cone, show that it will hold most water, if the ratio of its depth to the radius of its base  $= \sqrt{2}$ .

6. In the cardioid  $r=a(1+\cos \theta)$ , prove that the angle between the radius vector and the tangent is  $\frac{\pi}{2} + \frac{\theta}{2}$ .

Hence show that  $ap^2=r^3$ , and find the length of its radius of curvature.

7. Integrate each of the following with regard to  $x$ :—

(i.)  $x^2(e^{2x}+3e^{-x}+1)$ , (ii.)  $\frac{x+2}{\sqrt{2+2x-x^2}}$ , (iii.)  $\frac{3x+1}{(x-1)^2(x^2+1)}$ .

8. Obtain a reduction formula for  $\int_0^{\frac{\pi}{2}} \sin^p \theta d\theta$  when  $p$  is a positive integer, and deduce the values of this integral when  $p$  is an even positive integer,  $2n$ , or an odd positive integer,  $2n+1$ .

Evaluate  $\int_{\frac{\pi}{2}}^{\frac{\pi}{2}} (1+\sin \theta)^2 \cos^4 \theta d\theta$ .

9. Draw a rough diagram of the curve

$$a^3y^3=x^2(a^2-x^2).$$

Find the area of the curve, and the volume described by its revolution about the axis of  $x$ . Show that the centre of gravity of the loop of the curve lying on the positive side of the axis of  $y$  is at the point  $\left(\frac{3a\pi}{16}, 0\right)$ .

## STATICS AND DYNAMICS.

THREE HOURS.

1. A certain force acting on mass  $m$  for time  $t$  imparts to it velocity  $v$ ; find how long this force would take to move a mass  $M$  through a distance  $s$ , and also what velocity would  $M$  have then attained.

If  $m$  is 3 (lb.-mass),  $t$  is 5 (sec.),  $v$  is 11 (feet per sec.), find the measure of the force in poundals and in tons weight.

2. A man on a bicycle (total weight 12 stone) is moving at the rate of  $7\frac{1}{2}$  miles an hour at the top of a slope half a mile long; if he allowed his machine to run freely down hill it would attain a speed of 30 miles an hour at the bottom. He allows his speed to increase to 15 miles an hour, and then applies his brakes and takes the machine down hill at a uniform speed of 15 miles an hour. Find

- (a) the effective force down the hill;
- (b) the distance run from the top till he attains the speed of 15 miles an hour;
- (c) the work done per second by his brakes when he is travelling at uniform speed.

3. If three forces acting on a rigid body keep it in equilibrium they must meet at a point or be parallel.

A uniform rod of weight  $W$  and length  $2\sqrt{3}$  feet is hinged to a point on a horizontal plane 2 feet from the foot of a smooth inclined plane of angle  $60^\circ$ . The other end of the rod rests on the plane. Prove that the pressure on the

plane  $= \frac{W}{2}$ , and find the magnitude and direction of the

action at the hinge.

4. A glass marble is dropped from a height of 16 feet upon a marble floor. If the coefficient of rebound is  $\frac{3}{4}$ , show that  $4\frac{3}{4}$  seconds afterwards the marble is at the top of its third rebound, and that all rebounding will have ceased after 7 seconds.

5. Find the least force acting along the plane which will pull a body of weight  $W$  up a rough inclined plane of angle  $\alpha$  the coefficient of friction being  $\mu$ .

Find the horse-power of an engine which can raise 2 tons 10 feet in one minute by dragging it up a slope 100 feet long, the coefficient of friction being  $\cdot 1$ .



6. Find the normal acceleration in the case of a particle describing a circle with uniform speed.

A particle resting on a rough horizontal disc at a distance from the centre of 1 foot is just on the point of sliding when the disc is revolving at the rate of once in  $3\frac{1}{2}$  seconds; find the coefficient of friction.

7. Find the time of oscillation of a simple pendulum. Find the acceleration due to gravity on a planet where a seconds pendulum is 1 foot long.

8. Find the moment of inertia of a uniform cylindrical pulley about its axis.

A string carrying a weight of 2 lbs. at one end and a weight of 1 lb. at the other passes over a rough pulley of mass

1 lb. Prove that the acceleration of either weight  $= \frac{2g}{7}$ .

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## THIRD YEAR EXAMINATION.

## CHEMISTRY I.—(INORGANIC.)

1. Describe the nature of the experimental facts upon which the Ionization Theory of Solution is founded; give a description of the theory, and discuss the evidence for and against its correctness. How is the amount of ionization of a substance in solution determined? Do you know of any other theory of solutions?
2. Give a brief account of Lord Rayleigh's experiments leading to the discovery of Argon. How is Argon prepared and with what other gases is it associated? What are the common properties of these gases, and what position do they occupy in the Periodic Table with relation to other elements? Are there any anomalies in the position of any of them?
3. Give an account of the element Chromium and its compounds, viz., its occurrence, preparation of the principal compounds and their uses, nature and composition of its various oxides, salts and ions, and their relationships to the oxides, salts and ions of other elements.
4. Describe briefly any of those processes in which electrical energy is employed in the production of an element or compound of industrial importance, and point out the advantage of the electrical process over the process previously used.
5. Give a brief account of the methods employed in the determination of the atomic weights of elements, pointing out the accuracy of each method and the circumstances under which it can be applied. Give examples with each method of elements whose atomic weights have been determined by that method.
6. Compare the processes used in the extraction of the following metals from their ores:—Cu, Pb, Zn and Sn.
7. Give two examples of so-called rare elements, and give a brief account of each according to the scheme in question (3).

CHEMISTRY II.—(ORGANIC.)

1. Give examples of different kinds of isomerism. On what do they depend, and how may they be explained?
2. What general reactions characterise the aldehydes and ketones? How do oxidising and reducing agents act upon them respectively? How are dextrose and levulose classified, and what is their constitution?
3. Give instances of the preparation of organic compounds by electrolysis.
4. What are glucosides? Describe three, giving their constitution, and manner of breaking up under the influence of hydrolysing agents or ferments.
5. How are the constitution of fermentation lactic acid and of ethylene lactic acid indicated by the methods of preparation of these acids?
6. Discuss the methods for determining the position of the substituents in the Benzene nucleus?
7. By what reactions can Benzene-derivatives be obtained from fatty compounds?
8. What is Pyridine? and what is its constitutional formula?  
What alkaloids are known to be derivatives of Pyridine?

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CHEMISTRY—(HISTORY AND PHILOSOPHY).

1. Review briefly the progress of Chemistry among the Egyptians, Greeks, and Arabians, and show in what special directions the science was influenced by the predominance of these schools.
2. Discuss the part played by the Phlogiston Theory in the progress of the science. Name some of the more prominent of the supporters of this theory, and state their principal contributions to knowledge.
3. Discuss the influence of the discoveries of Priestley and Cavendish upon Lavoisier's conception of the phenomena of combustion and the overthrow of the Phlogiston theory.
4. Give a short account of the life and work of Sir Humphry Davy.

5. What difficulties stood in the way of the general acceptance of the Atomic Theory as enunciated by Dalton? How were these difficulties overcome?
  6. Trace the subsequent history of the Electro-Chemical Theory of Berzelius and its development into the modern electro-chemical theories.
  7. The discovery of new elements has frequently succeeded the application of new weapons of investigation. Give instances.
  8. To what conceptions regarding the constitution of chemical substances has the doctrine of Valency given rise?
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## GEOLOGY—(BOTH SECTIONS).

*Not more than SIX questions are to be attempted.*

1. During Permo-Carboniferous time the western shore of the Pacific extended inland in N.S. Wales at least as far as Wallerawang, and the Main Divide harboured glaciers; and in Cretaceous time a Mediterranean Sea extended from the Gulf of Carpentaria to near Dubbo and to Lake Eyre, the floor of that sea being now over 3000 feet below sea level, and overlying Triassic lacustrine deposits.  
Draw outline sketch sections from Bourke to Sydney to show (1) position of Divide in Permo-Carboniferous time, (2) its direction of movement from then down to Cretaceous time, and (3) its movement from Cretaceous time to the present. It may be assumed in each case that the movement hinges a little eastwards of the edge of the east continental shelf of Australia.
2. Compare the coast lines respectively of the Pacific and Atlantic Oceans, and account for the comparative absence of large rivers from the Pacific coast line. What evidence is there as to the relative ages of the Atlantic and Pacific Oceans?
3. Explain how it may be argued that Green's tetrahedral theory of the earth receives support from the directions of crust movement respectively in Europe and North America. In what direction, according to this theory, should the main crust movements have been directed in the Southern Hemisphere?

4. What possible equivalent has the Hercynian (Armorican) folding in Australia, to what age may it be referred, and with what physical conditions may it have been related, and how? Illustrate your answer with sketches showing relative age of such folding in Australia.
5. What is the nature of volcanic succession hitherto traced in Australian and Tasmanian petrographical provinces? What various causes may be assigned to the variation in (a) chemical composition or (b) mineral constitution of the lavas of various ages in Australia or Tasmania?
6. Describe the geological evolution of the chief area of subsidence in New South Wales—between the Monaro Tableland and the New England Tableland. Illustrate your answer with a sketch section.
7. Describe any important faults or folds in the neighbourhood of the Main Divide of Eastern Australia from Kosciusko to Cape York, quoting evidence for assigning relative dates to them.
8. Review the past geological history of the interior of Australia—from the MacDonnell Ranges to Dubbo, and from Lake Eyre to the Gulf of Carpentaria.

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GEOLOGY—(PALEONTOLOGY).

*Six questions only to be attempted, but questions 8 and 9 must be included. All answers should be fully illustrated.*

1. Give a detailed account of (i.) the hard structures of the Brachiopoda, and (ii.) their development.
2. Describe the principal types of hinge structure developed in the Pelecypoda, the mechanism of the hinge, and its effect on the form of the shell.
3. Give a general account of the Ammonoidea, comparing them with the Nautiloidea. Illustrate your answer fully by sketches, and give a brief account of the Ammonoidea found in Australia.
4. Give a general account of the Gastropoda and Conularida occurring in the Palæozoic rocks of Australia.
5. Describe in detail the structure and development of the Trilobita. Illustrate your answer fully.

6. What points of analogy are there between a Cystoid, a Blastoid, and a Palæo-crinoid? Describe the various modifications of the ambulacral system occurring in each of these classes.

7. Give a general account of the Palæozoic coral fauna of New South Wales.

Give lists of the most characteristic forms, with their horizons, drawing attention to salient characters.

8. What is meant by the following terms, and in what cases are they used :—Protoconch, pectinated rhomb, radianal, epitheca, stereoplasma, apical system, resilium, pseudo-deltidium, siphuncle, facial suture?

9. What are the following fossils, what particular point of structure does each show, and of what formation is each characteristic?—

*Ctenonites*, *Stringocephalus Burtini*, *Triarthrus Becki*, *Olenellus*, *Tribrachiocrinus corrugatus*, *Turrilites*, *Turitella*, *Protoretrepora ampla*, *Sanidophyllum Davidis*, *Trachypora Wilkinsoni*, *Fusulina*, *Eurydesma cordata*, *Trilonche*, *Maccoyella Barklyi*, *Archæocidaris*.

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#### GEOLOGY—(PETROLOGY).

*Note —Less credit will be given for questions 5 and 6 than for the others.*

1. Give a complete account of the use of refractive index in the determination of rock-forming minerals, explaining the methods both practically and theoretically.

2. Illustrate with typical rocks selected as examples the method of fully describing the texture (in extended meaning) of igneous rocks; and also show, with the aid of the same or other examples, what may be learnt from a careful study of the texture of a rock.

3. State the formulae, or approximate composition of the following minerals :—Orthoclase, leucite, nepheline, anorthite, diopside, olivine. In what other minerals does potash occur?

What relation holds between the molecular proportions of potash, soda, lime, and alumina, in the bulk analyses of igneous rocks under the following conditions :—The rock

contains (1) pure aegyrine as the only ferro-magnesian constituent; (2) plentiful diopside in addition to aegyrine; (3) diopside, but no aegyrine; (4) corundum.

4. Briefly describe one or two intrusions, or groups of intrusions, in which there is strong field evidence that a series of related igneous rocks has been derived by differentiation from a common magma.

Give some account of the hypotheses which have been suggested in explanation of such differentiation.

5. Give a description of the family *Mallites* (Nepheline-Syenites), both as regards its general features and the special characters of the principal rock-types included therein.
6. Describe fully the following rocks, with mention of their common mode of occurrence:—(a) Bostonite, (b) Malloaplite (Lestwarite), (c) Ijolite, (d) Monchiquite, (e) Æg-alisyenophite (Sölvbergite), (f) Tinguaitite, (g) Riebachite.

## THEORY OF THE MICROSCOPE AND OPTICAL MINERALOGY.

*Only SIX questions to be attempted, of which at least ONE must belong to Section A.*

### SECTION A.

1. Describe, and explain the action, of the principal methods which have been adopted in the construction of microscopes to correct for the chromatic and spherical aberration of lenses.
2. Define the *angular aperture* and *numerical aperture* of an objective, and describe a method by which the former may be measured.

Explain the reason of the fact that an immersion objective is regarded as superior to a dry objective of the same power.

### SECTION B.

3. Describe the principle and construction of Babinet's compensator, and explain how the strength of double refraction of a mineral may be obtained by its use.
4. Describe and explain the images seen when a small, brightly illuminated hole is viewed through two rhombs of calcite of equal thickness, placed with rhombohedral faces per-

pendicular to the line of sight, one being slowly rotated about an axis parallel to the line of sight, whilst the other remains stationary. Limit your explanation to conclusions regarding the transmission of light through calcite, which may be obtained inductively from the facts observed in this experiment alone.

5. Describe and fully explain the interference figure of a normal uniaxial mineral in a section cut at right angles to the optic axis.

What alteration will there be in the figure—(1) if the plane of the section be oblique to the optic axis; (2) if the section be rendered thinner; (3) if a mineral be selected in which the strength of double refraction is greater for red than for blue light?

6. What is the relation of the direction of propagation of rays to their wave-fronts in biaxial crystals—(a) in general directions, (b) in the principal sections? Describe and explain the phenomena of interior and exterior conical refraction.
7. What is the meaning of the symbols  $2E$ ,  $2H$ ,  $2V$ ? How are they related to one another and to other optical properties of minerals, and how may they be experimentally determined?
8. Give some account of pleochroism, and state the different circumstances under which it is manifested. Describe the *dichroscope*.

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#### CRYSTALLOGRAPHY.

1. What are the *crystal elements* in each of the systems, and upon what measurements are they based? Omitting the triclinic system, show how the elements may be deduced from the measurements.
2. Give an account of gnomonic projection, indicating for each system the conventional position of the crystal with regard to the plane of projection, and showing how a graphic solution of the indices of all faces may be obtained for each system. Proof of the graphic solution is not expected.
3. Prove that a plane perpendicular to an axis of symmetry of even degree is a possible face.



4. For each of the classes of the *monoclinic* and *rhombic* systems, state:—

- (a) Name.
- (b) Elements of symmetry.
- (c) Name and description of general form.
- (d) The name of a mineral exemplifying the class, with a very brief description of its common habit.

Make freehand perspective drawings of the general forms of two of the classes of the rhombohedral system.

5. Show how the general and all possible special forms belonging to *two* of the following classes may be derived from their elements of symmetry:—

- (a) Rhombic sphenoidal class.
- (b) Tetragonal scalenohedral class (Lewis); sphenoidal class (Dana).
- (c) Cubic plagihedral class.

Illustrate your answer freely with stereographic projections, and give the Millerian index of at least one face of each form.

6. Define *twin-axis*, and enumerate the possible directions in a crystal in which a twin-axis may lie. What is the difference between *hemitropic* and *symmetric* twins?

Describe the twins of *spinel*, *aragonite* and *orthoclase*.

# DEPARTMENT OF ENGINEERING.

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## FIRST YEAR EXAMINATION.

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(CIVIL, MINING AND METALLURGY, MECHANICAL AND ELECTRICAL.)

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### APPLIED MECHANICS I.

1. A mile of cable hangs from the drum of a winding engine and a 5-ton weight is attached to the lower end. Find the work done in winding up half the cable, which itself weighs 2 lbs. per yard.
  - (b) 20 cubic feet of water pass over a waterfall per second and arrive at the bottom with a velocity of 72 feet per second. Find what useful H.P. is developed in a turbine of 60 per cent. efficiency.
  - (c) A coal truck weighing 8 tons runs down an incline of 1 in 75, 1000 yards long, under the influence of gravity, and then runs up an incline of 1 in 50. If the frictional resistances amount to 10 lbs. weight per ton, how far will the car run up the second incline?
2. What do you understand by the *velocity ratio*, the *mechanical advantage* and the *efficiency* of a machine?

Illustrate your answer by finding the value of these quantities in the case of a screw jack in which the pitch of the screw is  $\frac{1}{4}$ -inch, the length of the arm is 20 inches, and the tangential force at the end of the arm required to lift 1 ton is 12 lbs. weight.
3. A planing machine when running idle absorbs an average of 1.8 H.P., and when at work the average power required, taking working and return strokes together, is 9.6 H.P. The mean speeds are, on the cutting strokes 20 feet per

minute, and on the return stroke 40 feet per minute. Find the mean value of the resistance overcome in making the cut, assuming the frictional resistance to be the same in the backward as in the forward stroke.

4. If the direction of motion of two points of a body be known, show how to find its instantaneous centre of rotation.

If CP be the crank and PQ the connecting rod of an ordinary direct acting engine, show that if QP produced meet the line through C perpendicular to CQ at the point T, then CT is proportional to the ratio of the velocity of the piston to that of P at any instant.

5. Sketch the slotted bar quick-return motion as used on shaping machines. Assuming the crank to be 6 inches long and the centre about which the slotted bar turns to be 9 inches from the centre of the crank shaft, find the ratio of the time of the cutting and return strokes, and the greatest and least value of the angular velocity ratio.

6. State and prove the necessary condition for toothed wheels to transmit a constant angular velocity ratio; show that epicycloids and hypocycloids satisfy the condition, and explain what is meant by the *faces* and *flanks* of the teeth. In what case do the flanks of the teeth become straight?

Describe any case of toothed gearing in which the angular velocity ratio transmitted varies according to a definite law.

## APPLIED MECHANICS II.

*Not more than FIVE questions are to be attempted.*

1. Write a short essay on the testing of ductile materials such as structural steel in tension compression, and cross-breaking, confining your attention to the preparation and dimensions of the various test pieces, and their behaviour when subjected to stresses. Illustrate your remarks by means of sketches of probable stress-strain diagrams which you would expect, and mark on them the characteristic points.
2. Investigate the bending moments and shearing stresses, and sketch diagrams illustrating the distribution of these stresses in the following cases:—
  - (a) A beam 10 feet long, supported at each end and loaded uniformly over the middle 6 feet of its length with 3 tons per foot run.

- (b) A beam of 15 feet span loaded at two points, which divide the beam into three equal parts, with equal loads of 20 tons each.
- (c) A girder of 100 feet span, subjected to a live load of 2 tons per foot run.
3. Describe any method with which you are acquainted for finding the moment of resistance of an unsymmetrical section such as a rail. What do you understand by the terms intensity of stress, modulus of rupture, modulus of the section, coefficient of elasticity, coefficient of rigidity?
  4. Design a plate web girder to carry a load of 2 tons per foot on a span of 30 feet, making all necessary calculations as to bending moments, shearing stresses, rivet spacing, &c., assuming the safe intensity of stress 6 tons per square inch.
  5. Make a skeleton sketch of a steel roof truss suitable for a span of 40 feet, and sketch the reciprocal figures for the dead load and wind pressure on one side. Show how you would check the stresses in any three bars by the method of sections. Assume that the total dead load on the truss is 12,000 lbs., and the total horizontal wind pressure on one side is 10,000 lbs.
  6. A rolled steel girder is 12 inches deep and the flanges are 6 inches wide, the thickness of metal  $\frac{1}{2}$  inch throughout. Find the moment of resistance if the working stress is 8 tons per square inch, and the greatest uniformly distributed load it would carry on a span of 10 feet without exceeding the allowed stress.
  7. Make sketches showing how you would design a railway viaduct in spans of 10 feet of ironbark timber beams and trestles. Assume the total load on the viaduct as 4 tons per foot run.
  8. Investigate the equations for the moment of resistance of a shaft to resist a given twisting moment. Find the diameter of a shaft to transmit 100 horse-power at 100 revolutions per minute. Explain how you would determine experimentally the coefficient of rigidity.

DECEMBER EXAMINATION.

xcv.

DESCRIPTIVE GEOMETRY.

*No written descriptions are required, but the various figures must be appropriately lettered.*

1. (PLANE GEOMETRY)—

- (a) Having given two converging straight lines AB and CD and a point P, it is required to draw a straight line through P such that the three lines converge to the same point, the latter being inaccessible.
- (b) Construct a square equal in area to a given polygon.
- (c) Show how to set off on a given circular arc a distance approximately equal to a given straight line. Draw a circle three or four inches in diameter and find by a geometrical construction the approximate length of quarter of its circumference; measure this length and that of the diameter and calculate the ratio of the two.
- (d) Draw the involute of a given circle and find the tangent, normal, and centre of curvature for any point P on the curve.

2. Given the following—

- (a) the traces of an oblique plane,
- (b) the plan and elevation of a cone,
- (c) the plan and elevation of a sphere,
- (d) the plan and elevation of a cylinder,

mark a point  $a$  as the plan of a point  $A$  on the surface in each of the above cases, and determine the corresponding elevations  $a'$ .

- 8. (a) Obtain the traces of a plane inclined at angles of  $60^\circ$  and  $45^\circ$  to the vertical and horizontal planes respectively.
  - (b) Through a given point in a straight line draw a plane perpendicular to the given line.
  - (c) Given the inclinations to the horizontal plane of two straight lines which meet and the angle between them, determine the traces of the plane containing them, and also their projections.
  - (d) Given two parallel oblique planes, find the true distance between them.
4. A conical pipe, 4 feet diameter at the base, 2 feet diameter at the top, and 5 feet high, is penetrated centrally by a cylindrical pipe 2 feet diameter, their axes being at right angles to one another.

Draw the plan and elevation of the pipes. Draw also the development of the surfaces, showing the shapes which must be cut from a flat plate so that when rolled into proper form they may be jointed with a clear way both vertically and horizontally through each.

5. Draw a plan and elevation of a cross standing on a square pedestal (the dimensions to be shown on the drawing), and obtain—

- (a) an isometric projection of the object,
- (b) a perspective projection of the object.

State clearly on the perspective drawing the assumptions you have made with regard to the relative positions of the spectator, the object, the plane of projection, etc.

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CHEMISTRY, PHYSICS, MATHEMATICS AND PHYSIOGRAPHY.  
The same papers as those set in the First Year of Science.

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## SECOND YEAR EXAMINATION.

## APPLIED MECHANICS I.

1. One pound of water is evaporated at 150 lbs. per square inch (absolute) and performs a Carnot cycle, the pressure in the condenser being 3 lbs. per sq. inch. Find the work done and sketch the  $p.v.$  diagram, calculating for this purpose two intermediate points on the expansion curve and one intermediate point on the compression curve besides that at which compression begins.

Summarise briefly the most important respects in which the behaviour of the working substance of an actual condensing engine using saturated steam differs from this case.

2. Discuss the use of superheated as compared with saturated steam with respect to (i.) thermodynamic efficiency and (ii.) actual efficiency, illustrating your answer by means of the entropy-temperature diagram.
3. Deduce the following expression for the mean effective pressure—

$$p_m = e \left\{ \frac{p_1(1 + \log r)}{r} - p_b \right\}$$

Explain clearly what assumptions are involved in the proof, and describe how the value of  $e$  is determined in any particular case.

4. Give a short account of any refrigerating machine using for its working substance a liquid and its vapour. Why is water not a suitable working substance? Discuss briefly the substances most commonly used for the purpose.
5. Contrast the advantages of single-acting and double-acting steam engines for high speed work, and give a short account of any well-known type of single-acting engine.
6. Describe the cycle of operations in the large gas engine in the laboratory and also the method of operation of the

*starter.* Contrast the method of governing employed in this gas engine with those on the H.P. and L.P. cylinders of the experimental steam engine.

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### APPLIED MECHANICS II.

*Students in Mechanical and Electrical Engineering are required to take Sections A and B.*

*Students in Civil and Mining Engineering are required to take Sections A and C.*

#### A.

1. (a) A cage weighing 2000 lbs. is hauled up a shaft by an endless cable passing over a winding drum. The weight of the cable hanging in the shaft is 500 lbs. If the cage, starting from rest, is lifted through 200 feet in 5 seconds with a constant acceleration, find the maximum tension in the cable.
  - (b) A train runs from rest 1000 yards down a grade of 1 in 50, the track then becomes level and the train stops after going another 8200 feet. Find the train resistance in lbs. per ton and the whole time of the journey.
  - (c) A 12-lb. weight in falling from rest, a distance of 6 feet, in 3 seconds imparts to a fly-wheel weighing 8 lbs. a speed of 300 revolutions per minute. Find the radius of gyration of the wheel.
- If this wheel is a model to  $\frac{1}{4}$  scale of a larger fly-wheel of similar metal, find the ratio of their moments of inertia.
- (d) The fly-wheel of the laboratory gas engine weighs  $2\frac{1}{2}$  tons, and its radius of gyration is 3 feet.
- When running with no load at 250 revolutions per minute gas is shut off, and in 1 minute the speed falls to 200 revolutions per minute. Assuming friction to be independent of the speed, find the H.P. that was being developed at the higher speed.
- (e) Water in a mill-race, or trough, of rectangular section is held back by a board which rests against two horizontal bars, one at the bottom of the trough and the other 2 feet above it. Find how high the water must rise in the trough before it will overturn the board.
2. A riveted steel water pipe is 86 inches in diameter and is carried on piers 10 feet centre to centre. Show how you



would determine the thickness of the metal for resisting the stresses due to bending, also for a head of water of 300 feet. Make sketches showing a longitudinal and circumferential riveted joint.

8. Make sketches illustrating the design and construction of any modern hydraulic passenger lift with which you are acquainted. Show how to determine the diameter of the ram to lift 2000 lbs. if the pressure is 700 lbs. per square inch. Make sketches also showing the lifting and lowering valve.

B.

4. What is meant by the *lead*, the *lap*, and the *angular advance* of a simple slide valve? If the lap is reduced by planing a small piece off the end of the valve, what is the effect on the lead, the point of cut-off, and the point of compression?

Find by a diagram the position of the crank at cut-off and at compression when the valve travel is 4 inches, the angular advance  $30^\circ$ , the outside lap  $\frac{3}{4}$  inch and the inside lap  $\frac{1}{2}$  inch.

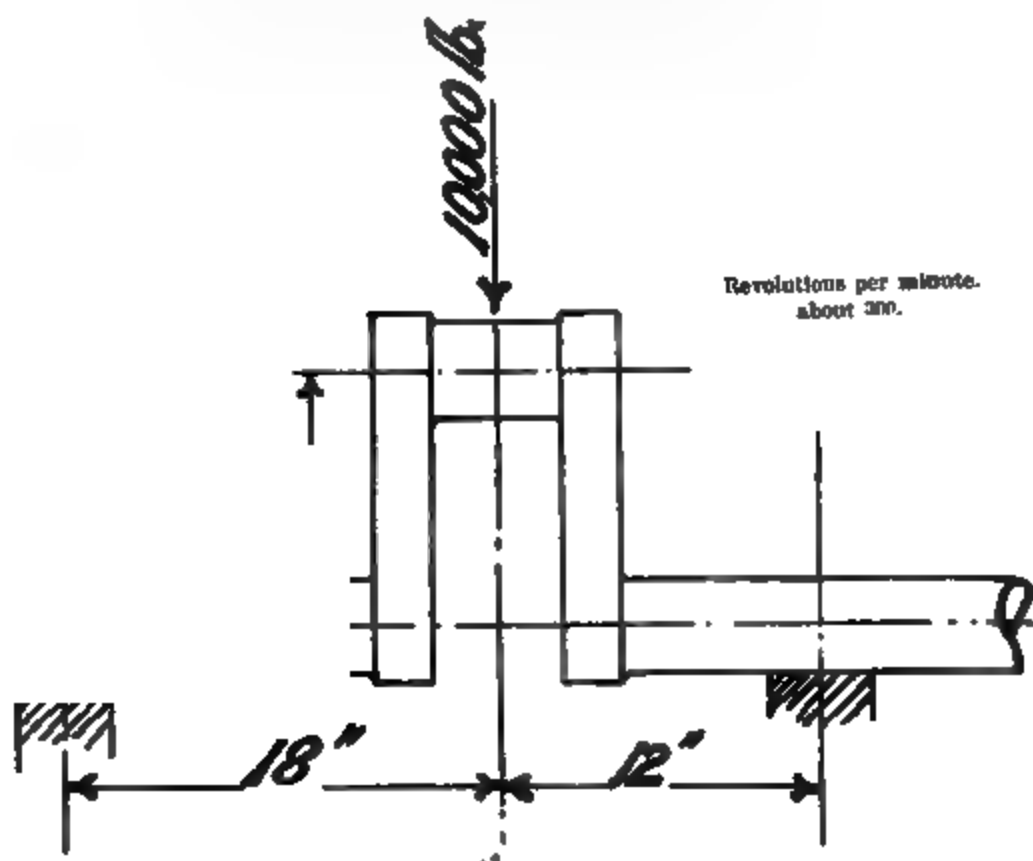
5. Describe accurately (chiefly by means of neat diagrams) the steps by which you would obtain a correct crank-effort diagram for a simple engine.
6. The following data are taken from a test of a gas engine using power-gas—

Cylinder diameter	...	...	...	= 50 inches.
Stroke	...	...	...	= 55 „
Average height of indicator diagram	...	...	...	= 0.5 „
Indicator spring	...	...	...	= 150
Admissions per minute	...	...	...	= 36
Gas consumed per minute	...	...	...	= 1020 cubic feet
Colorific value of gas	...	...	...	= 110 B.T.U. per c. ft.
Brake horse-power	...	...	...	= 550.

Determine the gas used per hour per I.H.P. and per B.H.P., the thermal efficiency of the engine, and its mechanical efficiency.

## C.

7. What considerations would influence you in the location of a railway to connect a coal mine situated in a mountain range with the sea coast, in regard to grades, curves and gauge. State also the kind of locomotive and truck you would adopt, illustrating your remarks by sketches.
8. Explain the meaning of the terms:—Boiler Power, Cylinder Power, Tractive Force, as applied to a locomotive engine. What is the maximum load a well proportioned locomotive can haul up an incline of 1 in 40, at a speed of 10 miles an hour, if the diameter of the cylinders is 18 inches, stroke 24 inches, driving wheels 4 feet in diameter, mean steam pressure effective 100 lbs. per square inch? What should be the weight upon the driving wheels of such an engine?
9. State briefly the preliminary investigations you would make before finally adopting any proposed source of water supply for a country town. Make sketches of a typical earth dam, showing outlet works. Assume suitable foundations and materials.



DECEMBER EXAMINATION.

ci.

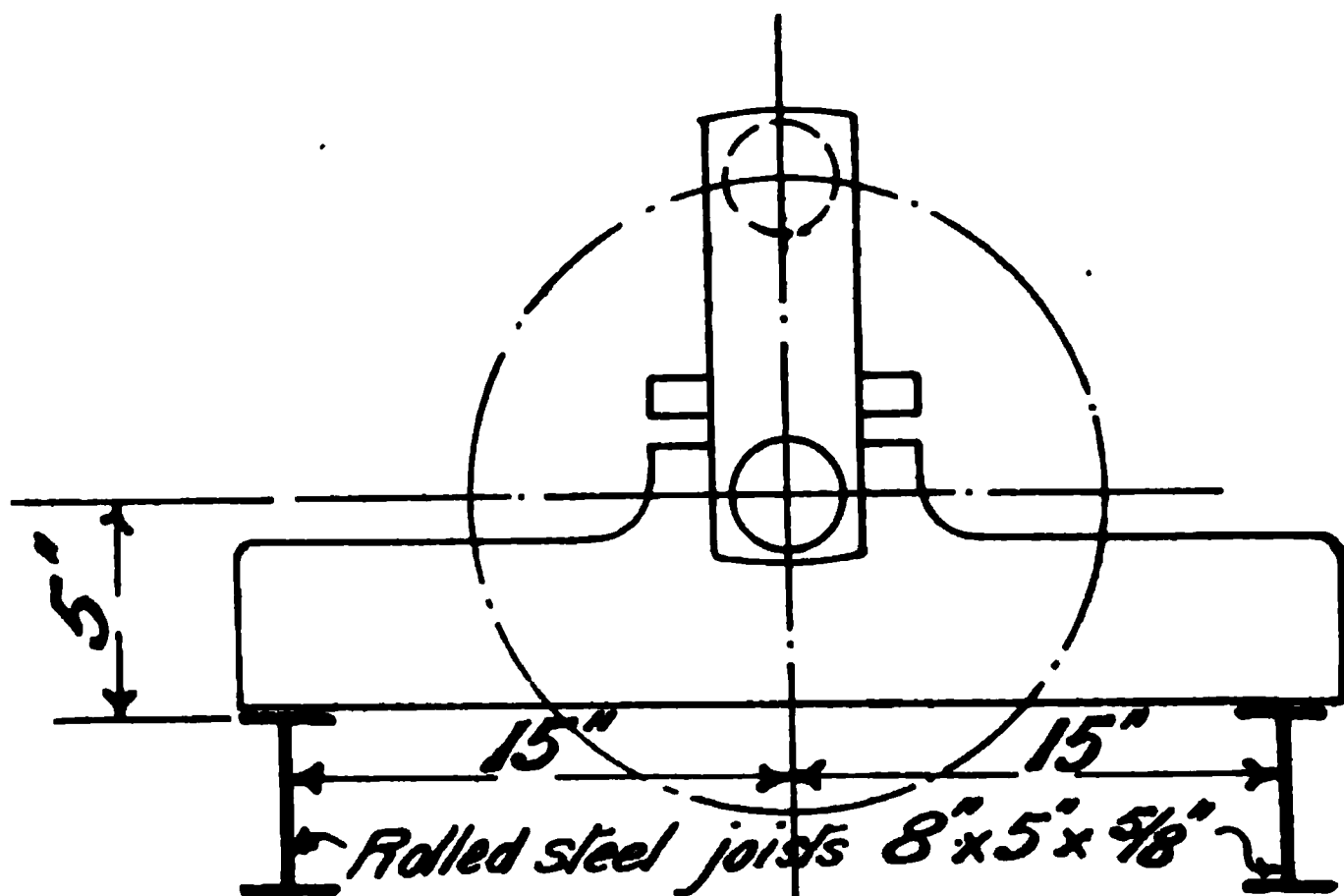
APPLIED MECHANICS III.

*The Drawings to be made on cartridge paper to such a scale as is convenient. All necessary calculations and dimensions are to be shown.*

*ONE question only to be attempted.*

1. Design the crank shaft, and one of the bearing frames, to suit the particulars given in the accompanying sketch. The frames are separate from each other, and are to be connected by rolled steel joists. Give reasons for the material and working stresses adopted.
2. Design a steam drum, with dished ends, suitable for a steam pressure of 200 lbs. per square inch, diameter 2 feet 3 inches, length 4 feet 6 inches. At one end is to be fitted a manhole door 12 inches by 16 inches, and at the other a facing is to be made suitable for the connection of a 6 inch diameter mild steel pipe.

Show details of pipe connection, and pipe, manhole cover, and all riveting. The longitudinal joint to be double riveted, with double butt straps. Give the reasons which lead you to adopt any particular factor of safety.



8. Design a 3 inch distributing valve box, suitable for a feed pump working against a pressure of 160 lbs. per square inch, the valves to be so arranged that the delivery of the pump may be taken to either or both of two places as desired. Give reasons for the material and working stresses adopted.

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CHEMISTRY—(MINING).

1. Give a general account of the materials used for lubricating purposes. What kind of material would you use (*a*) for high speeds, (*b*) for great pressures, (*c*) for high temperatures, (*d*) in presence of steam, (*e*) for low temperatures? Give reasons for your answer.
2. Describe the quantitative method of separating Fe from other metals by (*a*) the  $\text{NH}_4\text{HO}$  method, and (*b*) by the basic acetate method. Give equations. Under what circumstances and in presence of what metals would you use each method? Give alternative methods for estimating the Fe in the precipitate, in the presence of Al, and indicate briefly the circumstances which would lead you to prefer one method to the other.
3. Give a brief general account of the metal tin, its occurrence, extraction, properties and uses. Give the names and formulæ of its principal compounds, and point out their general resemblance to the compounds of the elements belonging to the same class as tin.
4. What are the principal ingredients of ordinary white paint as prepared for use? Briefly describe the preparation of each and its action in the paint. Name the chief adulterants, and give the names and composition of the common colouring materials of paints.
5. Describe the variation adopted in the ordinary procedure of qualitative analysis (*a*) if organic matter is present, and (*b*) if soluble silicates are present. Explain the methods described, and state what would happen in each case if the ordinary procedure were used. Give equations.
6. Classify mortars and cements, and explain the main differences between the various classes in composition, use, setting and hardening. How would you determine the percentage of  $\text{SiO}_2$  in a cement, and how would you test the purity of the  $\text{SiO}_2$  weighed?

7. The latent heat of vaporisation of water is 537 calories, and the heat of combustion of carbon burning to  $\text{CO}_2$  is 8080 calories per gram of C. Neglecting the correction for the specific heat of  $\text{CO}_2$ , etc., how many grams of carbon would it be necessary to burn in order to convert 10 kilograms of water at  $100^\circ\text{C}$ . into steam at  $100^\circ\text{C}$ .?

What volume in c.cs. of  $\text{CO}_2$  at  $819^\circ\text{C}$ . and 720 m.m. pressure would be produced per gram of C.?  $\text{C}=12$ ,  $\text{O}=16$ . 1 litre of H at  $0^\circ$  and 760 m.m. weighs .09 grams.

8. How are bleaching powder and potassium chlorate prepared on the large scale? What are their chief properties and uses?

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SURVEYING—(CIVIL, ELECTRICAL AND MINING).

Six questions are to be attempted.

Mining Students are required to attempt THREE questions in each paper.

I.

1. (a) A theodolite is used in reversed positions ; explain how it is that certain errors are eliminated from the results given thereby. (b) What error of adjustment would not be so eliminated? (c) How can an angle be measured with the greatest possible precision?
2. (a) Shew how to set out circular and other curves. (b) How to run a straight line very accurately. (c) Why can a horizontal be measured much more accurately than a vertical angle?
3. (a) Explain how a contour survey may be made. (b) With a contour survey to hand, how can a line of road or railway be decided upon? (c) Shew how calculations are made of cutting and filling in a longitudinal section of roadway where the cross-section changes from part cutting and part filling to all filling.
4. (a) The equations

$$\sum b \sin \beta = 0 ; \quad \sum b \cos \beta = 0$$

may be applied to the closure of survey ; illustrate geometrically that although theoretically two missing elements can be determined so as to satisfy the equations, practically we must consider whether the conditions for the determination of these elements are satisfactory.

(b) Explain the nature of the difficulties of closing the internal lines dividing a larger polygon into a number of smaller ones.

5. (a) Describe the circumstances of the flow of water in pipes, channels and rivers, and state how its velocity can be calculated. (b) Outline the theory and describe the use of a current-meter, and of an anemometer.
6. (a) What is the steady and what the turbulent flow of water? (b) In engineering problems which *régime* exists in flow through orifices, over weirs, and in pipes and channels? (c) Indicate the loss which takes place in pipes. (d) Describe the type of losses at diaphragms, sudden alterations of diameter, and at valves.

## II.

### FOR MINING STUDENTS ONLY.

1. (a) Describe how you would ascertain the latitude of any locality; (b) how you would determine the meridian; and (c) how you would compute convergency.
2. (a) Describe a mine survey. (b) Describe several methods of obtaining correct bearings for the underground lines.
3. A long tunnel is carried through a high mountain, with one side very steep, the other much less so. (a) Draw a diagram shewing the nature of a line of uniform grade through it. (b) If a line of levels were carried over the mountain, to what would the error of close in the levels be due? Give some indication of its amount.
4. (a) Explain the advantage which graphical methods for determining the strike and dip of a vein have over numerical methods. (b) Give a graphic method for solving the following problems:—
  - (i.) Given strike and dip, find dip in any direction.
  - (ii.) Given dip in a given direction, and direction of strike, to find greatest dip.
  - (iii.) Given dip of two veins, and their directions and dips at two points, to find line of intersection and dip of same.

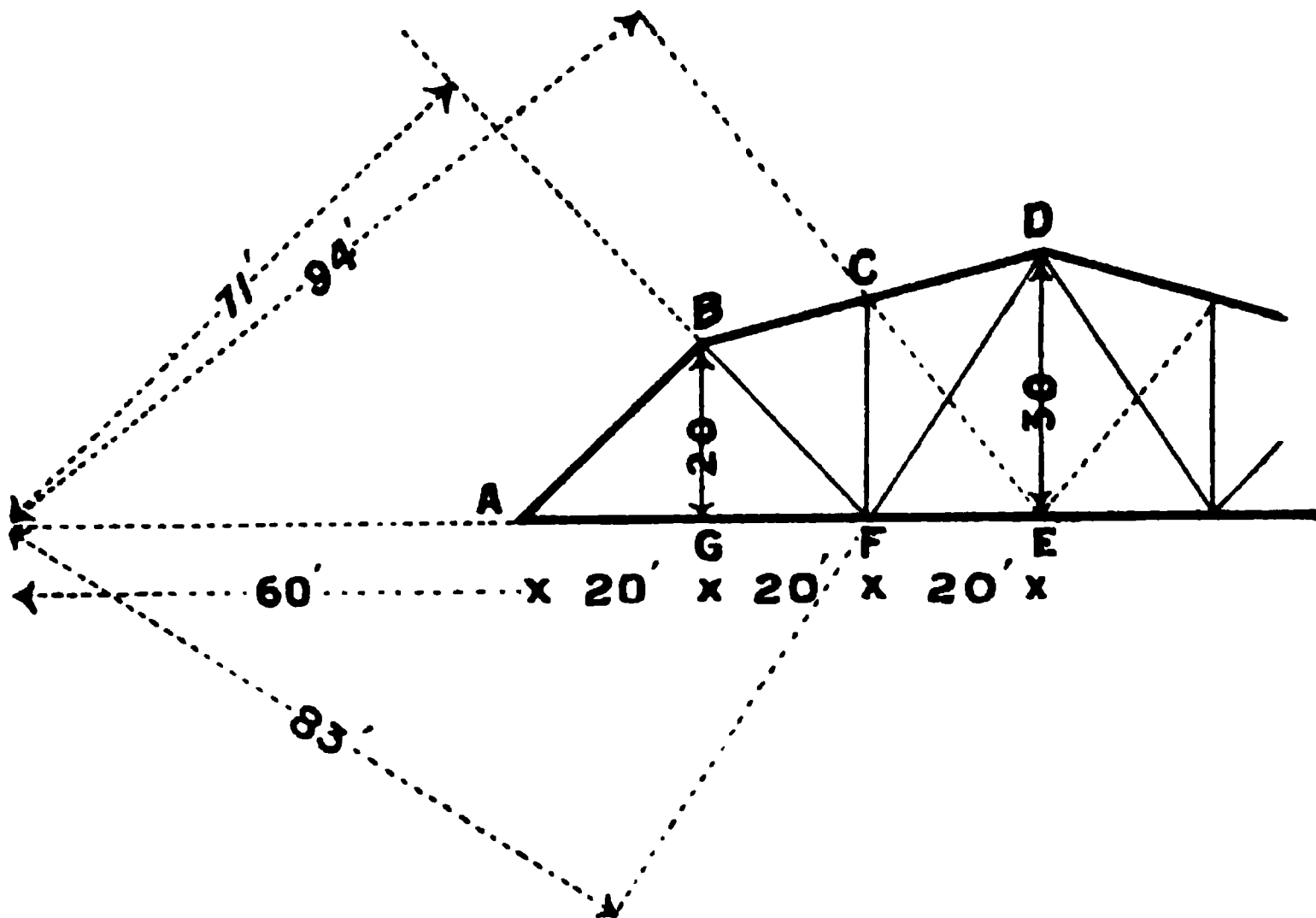
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### MATHEMATICS, PHYSICS, GEOLOGY AND MINERALOGY.

The same papers as those set in the Second Year of Science.

THIRD YEAR EXAMINATION.

MATERIALS AND STRUCTURES.



1. The above sketch illustrates the construction of a steel-truss for a bridge of 120 feet span. The loads, which may be considered concentrated at each of the bottom panel points G, F, E, etc., are  $7\frac{1}{2}$  tons for the dead, and 15 tons for the live load.

Calculate the stresses in the bars B—F, C—F, C—D, and D—F. Is C—E necessary? If so, how would you calculate the stress on it?

2. Make detail sketches showing how you would design the joints at F and C, giving full dimensions of the cross-sections of the upper and lower chords, the vertical C—F, and diagonals E—C and F—D.

3. Explain, by means of sketches, how you would construct the profile of a concrete dam, 100 feet high, for a reservoir. State the precautions you would take in building the dam to ensure water tightness, and give the proportions of the materials you would use for the concrete, the mixing, and building of the dam.
  4. Design a group riveted joint for four steel plates, each 24 inches wide by  $\frac{1}{2}$  inch thick, using four rows of steel rivets  $\frac{7}{8}$  of an inch in diameter, and 8 inches pitch. Investigate the resistance of the plates and rivets to tensile and shearing stress, and the pressure on the bearing area.
  5. Illustrate by means of sketches, and make all necessary calculations for the design of one of the following structures :—
    - (a) A plate web girder railway bridge, of 40 feet span, to carry a live load of 2 tons per foot run, and dead load of  $\frac{1}{4}$  of a ton per foot run.
    - (b) A timber railway viaduct, of 20 feet span, showing timber trestles 30 feet high, live load 8 tons per foot run, dead load to be calculated from the weight of the materials used.
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### MATERIALS AND STRUCTURES I.

*Only FIVE questions to be attempted.*

1. Write short specifications, giving tests for the supply of the following materials—
  - (a) Structural steel, rivet steel, and cast iron.
  - (b) Concrete for bridge piers and for foundations of buildings, stating qualities of materials used. Proportions and the precautions necessary in mixing and depositing the concrete in place.
  - (c) Timber for pile foundations and trestles, also for timbering in trenches and tunnels.
2. Illustrate by means of sketches and make all necessary calculations for the design of a timber viaduct, with timber trestles, 25 feet high, to carry one line of rails on spans



of 15 feet. Assume the live load to be  $3\frac{1}{2}$  tons per foot run, and calculate the dead load of the superstructure from the weight of the materials used.

3. Make a skeleton sketch of a Pratt truss consisting of five panels, each 30 feet long, for a through bridge of 150 feet span, and 30 feet depth. Calculate the stresses in its various members when each panel point is loaded with a fixed load of 5 tons, and a moving load of 15 tons. Write on the value of the stresses on each of the members of the truss.
4. Give the rules adopted for the determination of wind pressure, and make sketches illustrating how you would provide for wind pressure in the bridge described in question 3; and determine the stresses in the top and bottom lateral systems; also the sway and portal bracing.
5. Make sketches illustrating how you would design a crescent-shape roof truss for a span of 100 feet if the main principals are spaced 20 feet apart, centre to centre. Show how you would determine the stresses in one panel of the truss for wind pressure and dead load, assuming all necessary data.
6. Show how you would design a tension joint to connect two plates 12 inches wide by  $\frac{3}{4}$  of an inch thick so as to obtain the maximum efficiency. Discuss the strength of the joint in regard to the tearing, shearing, bearing areas and stresses. Make sketches showing how you would design the connections of the longitudinal girders of a bridge to the cross girders.
7. Explain by means of sketches how you would design a retaining wall and foundations on clay, having given the height of the wall, 30 feet; pressure on foundations, 2 tons per square foot; angle of slope of the backing of the wall, 45 degrees; weight of earth, 100 pounds per cubic foot.
8. Explain by means of sketches and calculations how you would design the profile of a concrete dam 100 feet high for a reservoir. Investigate the intensities of pressure on the inner and outer edges of the foundations of the dam, and state the precautions you would take in building to ensure water tightness.

MATERIALS AND STRUCTURES II.

1. Write down the equation of three moments, and apply it to find the equations of bending moments and shearing stresses in a continuous girder of two equal spans loaded with a dead and moving load uniformly distributed. State also the equations for three concentrated loads in each span, spaced at equal distances along the girder. Sketch the diagrams showing the distribution of bending moments and shearing stresses in each case.
2. Make a skeleton sketch of a Pratt truss consisting of five panels, each 30 feet long, for a through bridge of 150 feet span, and 30 feet depth. Calculate the deflection if each panel point is loaded with a dead load of 5 tons, and a moving load of 15 tons.
3. Referring to the bridge described in question 2, show how to calculate the maximum stresses in the various members if the dead load is 5 tons at each panel point, and the moving load consists of 10 pairs of wheels spaced 10 feet apart, centre to centre.
4. Show how you would calculate the stresses in a two-hinged arch rib when subjected to partial loading only. Investigate also the equations for temperature changes and rib shortening. Assuming all necessary data.
5. Make sketches of a suspension bridge suitable for Sydney Harbour, and show how you would calculate the stresses in the stiffening girders of an ordinary suspension bridge—
  - (a) Hinged at the centre.
  - (b) Without hinges.
 Assume all necessary data.
6. Compare the behaviour of reinforced steel-concrete beams with similar beams not reinforced, and show how you would obtain the moment of resistance of a beam having a cross section of 10 inches by 20 inches, reinforced with 2 per cent. of Bessemer steel.

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MECHANICAL ENGINEERING.

1. State the most important results obtained by Mr. Beauchamp Tower on journal and collar friction. Make sketches and show how you would design the following details :—

- (i.) An axle with the box or bearing for a locomotive carrying 8 tons upon the wheel;
  - (ii.) A collar bearing for an axial thrust of 75 tons.
2. Show how you would design a pair of screw gear wheels, with non-parallel axes, to transmit a given angular velocity ratio. Describe a method of producing accurately cut worm-gear.
  3. Write an Essay on balancing the rotating and reciprocating masses in engines, and find the weight and position of the balance-weights of an inside cylinder locomotive engine working under the following conditions :—

Weight of connecting rod, big end	150 lbs.
„ „ „ „ small end	70 „
„ „ „ „ plain part	180 „
Weight of cross-head and slide blocks	170 lbs.
„ „ piston and rod ... ..	200 „
„ „ crank web and pin ... ..	330 „
Radius of C. of G. of crank-web and pin ... ..	10 inches.
Radius of C. of G. of crank (R) ... ..	12 „
„ „ „ balance-weight (R <sub>b</sub> ) ... ..	30 „
Cylinder centres (C) ... ..	24 „
Wheel centres (Y) ... ..	72 „

Find the requisite balance-weight and its position for balancing the rotating and two-thirds of the reciprocating masses.

4. Compare the advantages and disadvantages of the modern reciprocating engine with Parsons' steam turbine of say 1500 K.W. capacity, and supply figures giving the steam consumptions at various loads, with and without super-heat.
5. Write an Essay on the design and construction of fly-wheels, and indicate the nature of the stresses produced in the various parts of the wheel under different conditions of mechanical design and operation.

## SURVEYING—(CIVIL).

1. (a) Explain how the direction of the astronomical meridian is determined, and if there be deflection of the plummet by attraction how this affects the direction. (b) State what are the consequences of defective adjustment of the instrument, and how to eliminate these as far as possible. (c) Shew how to calculate the convergency of meridians.
2. (a) Define the first point of Aries, and the moment of the vernal equinox. (b) How may latitude be obtained by solar observations? (c) What are the advantages of the method of circum-meridian altitudes, or of any other method through which great accuracy in the results can be secured?
3. (a) What advantages are possessed by recent methods of base-line measurements? (b) Shew how to develop a triangulation from a base, and discuss the advantages and disadvantages of various systems (*i.e.*, simple chain of triangles, hexagonal and quadrilateral systems). (c) Why should astronomical observations be made at as many stations as possible?
4. (a) Give a rapid method of adjusting the errors of the triangulation of a quadrilateral. (b) State the nature of the difference between such adjustment and a perfectly rigorous method. (c) How are normal equations formed?
5. (a) Describe how the tide is accurately observed without self-registering apparatus, (b) and with such apparatus. (c) The tidal elements for a harbour are required for prediction of time and height of tide; how would you proceed to obtain them? When would you make your observations, and why?
6. (a) Explain the nature of the assumptions made in ascertaining heights barometrically. (b) What is a barometric gradient? (c) What precautions are necessary in barometric hypsometry? (d) Explain thermometric hypsometry, and why mercury-in-glass are better than platinum-resistance thermometers for the purpose.

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CIVIL ENGINEERING I.

1. Describe how you would proceed in order to select a line of road in a low-lying swampy district intersected by

numerous water courses. Make sketches showing how you would construct the road, and write a specification for maintaining it in good repair.

2. Sketch a cross-section of a city street having footpaths of asphalt, and roadway of hard wood timber on suitable foundations, giving all necessary dimensions.

Write a specification for the various materials used, and estimate the probable cost of the road and footpaths per square yard of surface.

3. Describe some of the methods which have been employed in placing concrete under water, giving full particulars of the machinery used and the proportions of the ingredients used in the concrete.
4. Write an essay on pile driving, giving full information on the various appliances adopted. How would you determine when a pile is sufficiently driven, and the safe load it will carry?
5. Write a description of the methods employed in building large bridge piers, and supply sketches of a few good examples.
6. Write an essay on the various methods employed for the construction of breakwaters, and supply sketches of some well-known examples.

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#### CIVIL ENGINEERING II.

1. Sketch a cross-section of an earthen dam to impound 40 feet depth of water. The site is of a porous nature, with sound clay 10 feet below the surface. Indicate the nature of the outlet works for domestic supply: the diameter of the pipe is 36 inches. Compare the British and American methods of constructing earthen dams.
2. Write an essay on the filtration of water, stating the various materials used. Make sketches giving dimensions of an ordinary sand filter; also of an American mechanical filter, such as the "Jewell," to pass 100,000 gallons per day.
3. Make sketches giving dimensions showing how you would design a covered service reservoir to hold 500,000 gallons of water, with all necessary pipes. Assume favourable conditions as to site and foundations. Specify the materials you would use.

4. Design the cross-section of an open conduit to discharge 50 cubic feet of water per second. The grade of the conduit is 1 in 1000, and the side slopes are 1 to 1, pitched with stone. Write a specification for the work, and give the quantities for one lineal yard.
5. Write an essay on the disposal of sewage, and give examples of the employment of septic tanks and filters.
6. Make sketches showing how you would arrange the sub-soil and house drainage in a large suburban residence built upon a clay formation. Show details of the connections for baths, lavatory, W.C.'s, sinks, gulleys, &c, such as would be approved by the Water and Sewerage Board. Assume the main sewer to be situated conveniently to the residence.
7. Explain, with the aid of sketches, how you would carry a sewer or a water course over a wide valley at a height of say 100 feet above it in the deepest part. Write a specification to govern the quality of the materials used and mention any precautions which are likely to be necessary in the construction of the works.

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#### MINING I.

1. Mention what influence variations in the (*a*) strike, (*b*) underlay, (*c*) width, (*d*) texture and (*e*) distribution of ore would have on the working of an auriferous quartz reef.
2. What circumstances would influence you in deciding—
  - (*a*) The position you would select for the site of a main shaft to work a lode?
  - (*b*) The number and size of the compartments?
3. Name the principal methods of transporting ore or mullock from the stopes to the levels, along levels to the shaft, and from the bottom of the shaft to the surface.
4. What is understood by the following mining expressions :—  
air lock, chain breast machine, claying bar, flat sheet, gad, gun, safety hook, shaft bar, sollar, stull-piece?
5. Compare the advantages and disadvantages of circular and rectangular shafts.

MINING II.

1. In connection with compressed air, what is the object of (a) compounding, (b) an intercooler, (c) a reheater, (d) an air receiver?
2. State the sources from which water may be expected to enter a mine. What steps can be taken to keep it back? Mention different methods of unwatering a mine.
3. You are required to report on a river and adjacent river flats which it is proposed to work by means of a bucket dredge. What are the main points you would take into consideration?
4. Describe, with sketch, a Hartz jig. Mention the main points of difference in a jig for coarse and fine materials.
5. Mention the requirements of a good working safety lamp. Draw a sketch of one; letter and name the different parts, and show by arrows how the air enters and the products of combustion pass out of the lamp.

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METALLURGY I.

1. Describe the main characteristics of the Retort Coke Oven, and the distinctive characteristics of the Coppee, Simon-Carves, Otto Hofman, and Semet-Solvay Ovens.
2. Enumerate the characteristics of the cyanide process as carried out at Kalgoorlie, W.A.  
Describe shortly and compare the two chief cyanide processes practised there for treatment of sulpho-telluride ores.
3. Give in brief outline the methods of parting and refining gold and silver bullion.
4. Describe the method of weighing, sampling, and storing of ores and fluxes at Customs smelting works.  
Upon what considerations does the classification and grading of the various ores at a lead smelting works, for instance, depend?
5. Give the composition of and conditions under which matte is produced.

Describe a smelting process in which it is produced—

(a) As the chief product.

(b) As a secondary or bye-product.

And further describe the treating of such a bye-product for the recovery of valuable metals.

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### METALLURGY II.

1. Point out the main differences in design of blast furnaces for smelting lead and copper ores, and give reasons for such differences.

2. What are the characteristics in design and working of a large modern reverberatory furnace such as used at the Argo Works, Denver?

What are the chief points of interest in the smelting practice at these works?

3. Describe the Electrolytic process of Copper Refining.

4. Enumerate the advantages resulting from the use of hot blast in Iron smelting.

Describe the method adopted for heating the blast.

5. Describe the puddling process for the manufacture of wrought iron. Compare the process with that of the open hearth process of steel manufacture.

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### THEORY OF ASSAYING.

1. A sample of lead ore is sent to you for assay. The ore is in lumps of about 1 lb. in weight, and the total sample weighs 1 cwt. How would you proceed to get your assay sample from this?

2. How would you determine the value of the following as refractory materials—(a) a quartz reef, (b) river sand, (c) a sample of firebrick?

3. What are the fluxes used in assaying gold and silver ores, and what are their functions?

4. Describe how you would prepare the following—(a) Pure Sodium Chloride, (b) Cuprous Chloride for determining Carbon Monoxide, (c) pure Silver Nitrate.



DECEMBER EXAMINATION.

cxv.

5. Give the outline of Low's method of Zinc assay by Ferrocyanide, showing the reactions which occur in preparing the ore and in titration.
6. Explain how you arrive at the conclusion that when estimating lime by means of permanganate titration, the iron indicated, when divided by 2, is equal to the lime present.

Fe=56. Ca=40. O=16.

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## FOURTH YEAR EXAMINATION.

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ELECTRICAL ENGINEERING.

1. Explain briefly what is meant by the "three-wire" system, and state the advantages attending its use.
2. What is a circuit-breaker? Describe, with rough sketches, any two types with which you are familiar, and criticise their general features.
3. State what you know of the probable causes of excessive sparking at the brushes of a dynamo, and how you would roughly differentiate between the various possible causes.
4. Describe the general theory and construction of a rotatory converter. How does it compare with a motor generator in point of advantage?
5. What system of generation and distribution would you adopt on the following assumptions?—(a) Greatest radial distance to consumer does not exceed  $1\frac{1}{2}$  miles, but densest demand within 1 mile. (b) Residential district radius 1 mile to  $1\frac{1}{2}$  mile. (c) Radius not exceeding 3 miles. (d) Radial distance  $1\frac{1}{2}$  to 2 miles, dense as regards demand.
6. Show diagrammatically the circuit of a tramway system using overhead trolley wire, shewing the whole of the equipment outside the power house, with the exception of the rolling stocks, giving a brief explanatory description of the appliances used in connection therewith.

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ROADS AND RAILWAYS.

*Not more than FIVE questions to be attempted.*

1. Make sketches illustrating the method of timbering a bottom heading for a railway tunnel through a stiff clay formation. Also the method of mining and lining a length.
2. Make sketches showing the permanent way suitable for a main line in New South Wales; also, the permanent way for an electric tramway, giving full particulars as to weight of rails, sleepers, and ballast for the railway, and concrete and sleepers for tramway, connections, bonds, etc. Write also a brief specification for the manufacture of the steel rails, giving all necessary tests.

3. Describe, briefly, the process of manufacture adopted for steel tyres and axles, giving the various tests you would use to prove the quality of the material, and the results you would expect. Describe also the manufacture of American cast-iron wheels.

4. Given the following data in connection with a locomotive engine:—

Diameter of cylinder, 18 inches.

Length of stroke, 24 inches.

Diameter of driving wheels, 4 feet.

Mean effective steam pressure in cylinder, 100 lbs. per square inch.

Calculate the tractive force, and state the total weight which should be placed on the driving wheels.

What load will this locomotive haul up an incline of 1 in 40 at a speed of 10 miles an hour? If the same engine and train, fitted with the Westinghouse brake, were descending a grade of 1 in 100 at a speed of 20 miles an hour, with 50 per cent. of the total weight of the engine and train braked, what is the length of the shortest stop which could be made by a full application of the brake?

5. Compare the cost of working two lines of railway, each 20 miles long, one on a level throughout, the other rising and falling 1000 feet, having given the following data:—

Total weight of engine and train, 400 tons.

Mean speed over the 20 miles, 18 miles an hour.

Mean speed on the up grade, 12 miles an hour.

Coal consumption, 4 lb. per effective horse-power.

Cost of coal, 12s. per ton.

Cost of water, 20 per cent. that of the coal.

Train resistance on the level, 9 lbs. per ton.

6. Make sketches illustrating the construction of a good macadamized road, and a timber paved road as used in Sydney. What precautions would you take to ensure a good road in each case? Specify as fully as possible the materials used. Write a specification for an asphalt footpath, say for George Street, Sydney.

## DEPARTMENT OF PHARMACY.

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PHARMACY STUDENTS TAKE THE FOLLOWING PAPERS:—

CHEMISTRY—INTRODUCTORY and METALS, as in the First Year of Science.

CHEMISTRY—CARBON COMPOUNDS, as in the Second Year of Science.

PRACTICAL CHEMISTRY—Four hours.

BOTANY—As in the First Year of Science.

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### MATERIA MEDICA.

1. What do you know of the chemical nature of resinous bodies? Illustrate your answer in the case of Asafoetida, and of Resin (B.P).
  2. What relationship has the presence of the green colour to the quality of Oil of Cajuput, Resin of Guaiac, Apomorphine, and Extract of Cannabis Indica respectively, explaining in each case the cause of the green colour so far as you can?
  3. What are the official sources of Red Sanders Wood, Oil of Sandal Wood, and Starch respectively, stating natural order, genus, and species?  
What are the chief constituents, in the first two bodies; in the case of the last, how would you distinguish microscopically one (official) form from another?
  4. Whence and how are obtained Gamboge, Galbanum, Gum Acacia, and Tar respectively?
  5. Ergot, Paraffinum Molle, Cod Liver Oil, and Cascara Sagrada (bark). State what you know about the nature of the alterations, if any, which these are liable to undergo by keeping, and the means of preventing them (if desirable).
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# **\*EXAMINATION PAPERS.**

MARCH, 1905.

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## **FACULTY OF ARTS.**

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### **FIRST YEAR EXAMINATION.**

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**LATIN PROSE COMPOSITION AND UNSEEN TRANSLATION.**

**HONOURS.**

**1. Translate into Latin—**

For sixty years has the British Republic held on its way under one President. Britons are minded that the head of their State shall be called King or Queen; the name is pleasing to them; it corresponds to a popular sentiment, vaguely understood, but still operative, which is called loyalty. The majority thinking thus, and the system being found to work more than tolerably well, what purpose could be served by an attempt at revolution? The nation is content to pay the price; it is the nation's affair. Moreover, who can feel the least assurance that a change to one of the common forms of Republicanism would be for the general advantage? Do we find that countries which have made the experiment are so very much better off than our own in point of stable, quiet government and of national welfare? The theorist scoffs at privilege which will bear no examination, at compromises which sound ludicrous, at submissions which seem contemptible; but let him put forward his practical scheme for making all men rational, consistent, just.

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• The time allowed for each paper is three hours, except where otherwise stated.

2. Translate—

(a) Sed quo divitias haec per tormenta coactas,  
cum furor haud dubius, cum sit manifesta phrenesis,  
ut locuples moriaris, egentis vivere fato?  
interea pleno cum turget sacculus ore,  
crescit amor nummi, quantum ipsa pecunia crevit,  
et minus hanc optat qui non habet. ergo paratur  
altera villa tibi—cui rus nunc sufficit unum?—  
et proferre libet fines maiorque videtur  
et melior vicina seges: mercaris et hanc et  
arbusta et densa montem qui canet oliva.  
quorum si pretio dominus non vincitur ullo,  
nocte boves macri lassoque famelica collo  
iumenta ad virides huius mittentur aristas,  
nec prius inde domum, quam tota novalia saevos  
in ventres abeant, ut credas falcibus actum.  
dicere vix possis, quam multi talia plorent,  
et quot venales iniuria fecerit agros.  
sed qui sermones, quam foedae bucina famae!

(b) Quod si Aquiliana definitio vera est, ex omni vita simulatio dissimulatioque tollenda est. ita nec ut emat melius nec ut vendat quicquam simulabit aut dissimulabit vir bonus. atqui iste dolus malus et legibus erat vindicatus, ut tutela duodecim tabulis, circumscriptio adolescentium lege Plaetoria, et sine lege iudiciis, in quibus additur EX FIDE BONA. reliquorum autem iudiciorum haec verba maxime excellunt: in arbitrio rei uxoriae MELIUS AEQVIVS, in fiducia VT INTER BONOS BENE AGIER. quid ergo? aut in eo, QVOD MELIUS AEQVIVS, potest ulla pars inesse fraudis? aut, cum dicitur INTER BONOS BENE AGIER, quicquam agi dolose aut malitiose potest? dolus autem malus in simulatione, ut ait Aquilius, continetur; tollendum est igitur ex rebus contrahendis omne mendacium. non illicitatorem venditor, non qui contra se liceatur emptor adponet; uterque, si ad eloquendum venerit, non plus quam semel eloquetur. Quintus quidem Scaevola, Publii filius, cum postulasset ut sibi fundus, cuius emptor erat, semel indicaretur idque venditor ita fecisset, dixit se pluris aestumare: addidit centum milia.

LATIN AUTHORS.

HONOURS.

1. Translate and comment upon extracts from Tacitus, *Dialogus de Oratoribus* and *Agricola*.
2. Translate extracts from Virgil, *Æneid* I. to IV.
3. Scan the following lines, with any comments that you think called for—
  - (a) *Dat latus: insequitur cumulo praeruptus aquae mons.*
  - (b) *Vina bonus quae deinde cadis onerarat Acestes.*
  - (c) *Nereidum matri et Neptuno Aegaeo.*
  - (d) *Liminaque laurusque Dei, totusque moveri.*
  - (e) *Noctem hiememque ferens, et inhorruit unda tenebris.*

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ROMAN HISTORY.

HONOURS.

1. Upon the expulsion of the kings, the Plebeians for the first time acquired political rights. But two centuries of almost incessant strife were to pass before the last of the Patrician privileges disappeared.—*Taylor*.  
Comment on this statement.
2. Give an account of the races that inhabited Italy in the sixth century B.C.
3. "The history of Rome down to the time of the Punic wars rests on a very unsatisfactory basis."  
Discuss this.
4. Give an account of the legislation of the Decemvirs, and discuss the opinion that Livy's account of the Decemvirate is unsatisfactory and unhistorical.
5. "No war ever showed more clearly the weak and the strong points of a nation than the struggle of Rome against Hannibal."  
Comment on this.
6. Describe the career and sketch the character of Scipio, the conqueror of Hannibal.

7. Describe the influence of Hellenism upon Rome in the second century B.C.
  8. Distinguish between *Coloniae civium Romanorum* and *Coloniae Latinae*.
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## GREEK COMPOSITION.

## HONOURS.

Translate into Greek Prose—

The commander-in-chief perceiving that all discipline would be at an end, unless some means were found of allaying the general discontent, called together his officers, and made them an address. "It would be idle," he said, "to deny that, straitened as we are for supplies, our present position is full of difficulties. We must remember, however, that but for circumstances which could not possibly be foreseen we might have already overtaken the enemy. Would, indeed, that they had been willing to await our attack! As it is, if they have continued their march, they must by this time have gained the mountains, where it would be difficult for us to follow them; and even if they offer us battle of their own accord, they will have the hill-tribes on their side. It may perhaps be said that we ought to have attacked them at first, even though our allies had not come up. In order, I suppose, that we might be defeated in detail, as would infallibly have been the result had these counsels prevailed."

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## GREEK—SPECIAL SUBJECT.

## HONOURS.

1. Translate extracts from Homer, *Odyssey* xvii.-xix.
2. Translate and give notes upon the following passages—
  - (a) ἐμὲ δ' ἄξει ἀνὴρ ὅδε, τὸν σὺ κελεύεις,  
αὐτίκ' ἐπεὶ κε πυρὸς θερέω ἠλέη τε γένηται.
  - (b) αὐτὸν δ' εἰσω ἱεν καὶ ὑπέρβη λάινον οὐδόν.
  - (c) ἴξε δ' ἐπὶ μελίνου οὐδοῦ ἔντοσθε θυράων  
κλινάμενος σταθμῷ κυπαρισσίνῳ.



- (d) αὐτὰρ Ὀδυσσεὺς  
ἔλκε δι' ἐκ προθύροιο λαβὼν ποδὸς, ὅφρ' ἵκετ' αὐλὴν  
αἰθούσης τε θύρας.
- (e) κάλλει μὲν οἱ πρῶτα προσώπατα καλὰ καθῆρεν  
ἄμβροσίῳ.
- (f) οὐ μὲν τοι ξείνου γε καὶ Ἰρου μῶλος ἐτύχθη  
μνηστήρων ἰότητι, βίη δ' ὅ γε φέρτερος ἦεν.
- (g) ἔρματα δ' Εὐρυδάμαντι δύω θεράποντες ἔνεικαν  
τρίγλῃνα μορόεντα.
- (h) αἶ κ' ἔλθῃ πρὸς δώματ' Ὀδυσσεὺς θείοιο,  
πολλὰ οἱ ἀμφὶ κάρη σφέλα ἀνδρῶν ἐκ παλαμάων  
πλευραὶ ἀποτρίψουσι δόμον κάτα βαλλομένοιο.
- (i) ἀλλ' ἄγετ' οἰνοχόος μὲν ἐπαρξάσθω δεπάεσσιν,  
ὅφρα σπείσαντες κατακείμεν οἴκαδ' ἰόντες.
- (k) νῦν γὰρ καταθήσω ἄεθλον,  
τοὺς πελέκεας, τοὺς κείνος ἐνὶ μεγάροισιν ἐοῖσιν  
ἵστασθ' ἐξείης, δρυόχους ὦς, δώδεκα πάντας·  
στὰς δ' ὅ γε πολλὸν ἄνευθε διαρρίπτασκεν ὀιστόν.

3. What traces do Books xvii.-xix. present of the process of revision and amplification by which the *Odyssey* attained the form in which we now have it?

### JUNIOR FRENCH I.

#### COMPOSITION, UNSEEN TRANSLATION AND HISTORICAL GRAMMAR. HONOURS.

1. Translate into French—

For the first four or five miles out of London, I annoyed my fellow-passenger on the roof by occasionally falling against him when the coach gave a lurch; and, indeed, if the road had been less smooth and level than it was, I should have fallen off from weakness. Of this annoyance he complained heavily; as, perhaps, in the same circumstances, most people would. He expressed his complaint, however, more morosely than the occasion seemed to warrant; and if I had parted with him at that moment, I should have thought of him as a surly and

almost brutal fellow. Still I was conscious that I had given him some cause for complaint; and therefore I apologised, assuring him that I would do what I could to avoid falling asleep for the future; and, at the same time, in as few words as possible, I explained to him that I was ill, and in a weak state from long suffering, and that I could not afford to take an inside place. The man's manner changed upon hearing this explanation in an instant: and when I next woke for a minute, from the noise and lights of Hounslow (for, in spite of my efforts, I had again fallen asleep within two minutes), I found that he had put his arm round me to protect me from falling off; and for the rest of my journey he behaved to me with the gentleness of a woman. And this was the more kind, as he could not have known that I was not going the whole way to Bath or Bristol.

2. Translate (at sight)—

(a) Il s'en fallait cependant de beaucoup que je fusse à l'abri de tout danger. En rendant l'impôt inutile, j'avais irrité les préposés du fisc, qui recueillent toujours la meilleure part de tous les impôts possibles. J'avais aigri le sot orgueil de la populace qui souffre impatiemment qu'on se mêle des affaires. J'avais humilié la vanité des riches, dont mes profusions scandaleuses avaient rendu le faste ridicule. Loin de me savoir gré de mon refus, le vizir le regardait comme un moyen plus sûr de m'emparer de sa puissance, en l'avilissant dans ses mains et en me faisant par des largesses des créatures dans le peuple. Telle était la position des choses, quand on m'annonça que le grand vizir demandait à me parler. C'était un homme déjà sur l'âge, dont toute la physionomie annonçait la plus honteuse avarice. Son œil était creux, fauve, éraillé, sa figure hâve et plombée par de longs soucis; son dos était voûté en quart de cercle, comme celui de ces malheureux ouvriers qui travaillent aux mines. Son corps grêle, épuisé par les privations, chancelait sur ses frêles appuis, comme un chalumeau vide que la faux du moissonneur a oublié en passant.

(b) Le Tokaïdo est un chemin singulièrement fantaisiste. Quand il rencontre une baie un peu profonde, au lieu de la contourner, il s'arrête sur la côte et reprend en face.

Les voyageurs s'arrangent comme ils peuvent pour traverser le bras de mer. La plupart des rivières interrompent également les routes ; on les passe à gué ou dans des bacs, quelquefois sur des ponts suspendus d'une étrange hardiesse. En d'autres endroits, il n'y a qu'un simple câble auquel est accroché un vaste panier mobile. Les passants s'installent dans ce véhicule et se halent à la force du poignet tout le long du câble. Quand il pleut, le chemin se change en un vaste marais dans lequel chacun patauge de son mieux. On voit qu'il n'est pas mauvais pour voyager au Japon d'être bon nageur, un peu acrobate et tout à fait philosophe.

### 3. Historical Grammar—

- (i.) Write down the Popular equivalents for the vowels of Classical Latin, and trace their normal development, when accented, in French.
- (ii.) By what rules would you explain the “*e féminin*” in *vie, croire, carrefour, venir, cheval*?
- (iii.) Trace the history of declension in French, and give any instances of the survival of case in modern words.
- (iv.) Write out the present, imperfect and future indicative, and the present subjunctive of the verb *être* in Old French, and explain fully the modern forms.
- (v.) Give the derivation of *leurs, lors, volontiers, mais, jadis, évidemment*, accounting for peculiarities in form or pronunciation.

### JUNIOR FRENCH II.—AUTHORS.

#### HONOURS.

1. Translate, adding comments where necessary, extracts from *Pages choisies de Sainte-Beuve*.
2. Compare Sainte-Beuve's methods of criticism with those of Taine.
3. Translate, extracts from *Novelettes* (ed. Masson).
4. Sketch shortly the life and literary career of Alfred de Vigny.

GEOMETRY.

HONOURS.

TWO HOURS.

1. Prove that, if two triangles have equal bases, and supplementary vertical angles, their circumcircles are equal. O is the orthocentre of a triangle ABC, L, M and N are the centres of the circles OBC, OCA and OAB. Show that the triangle LMN is equal in all respects to the triangle ABC, and that A is the centre of the circle through M, N, and the orthocentre of LMN.
2. Prove that each diagonal of a complete quadrilateral is divided harmonically by the other two diagonals. Hence, or otherwise, prove that the circle described on a diagonal of a complete quadrilateral as diameter cuts orthogonally the circle circumscribing the triangle formed by the diagonals.
3. If ABC is a triangle, and L, M, N are points in the sides BC, CA, AB such that

$$\frac{BL}{LC} \cdot \frac{CM}{MA} \cdot \frac{AN}{NB} = 1,$$

prove that AL, BM and CN meet in a point.

Show that the straight lines joining the angular points of a triangle to the points of contact of the opposite escribed circles are concurrent.

4. Show that a circle inverts into a straight line, if the centre of inversion is on the circumference of the circle.  
Find the centre and radius of inversion in order that a given circle may invert into a given straight line. With this radius and centre, what will the given straight line invert into?
5. If a solid angle is contained by three plane angles, the sum of any two is greater than the third. A solid angle is contained by three plane angles. Prove that any straight line drawn through the angular point makes with the edges angles whose sum is greater than half the sum of the angles which contain the solid angle.
6. In a parabola prove that  $PN^2 = 4AS \cdot AN$ . P and Q are two points in a parabola such that PAQ is a right angle. Prove that the latus rectum is a mean proportional between the ordinates at P and Q.

7. If a tangent to an ellipse meets the major axis in T and N is the foot of the ordinate at the point of contact,  $CN \cdot CT = CA^2$ .

If the tangent at an extremity of the latus rectum meet the major and minor axes respectively in T and t, then the circle STt touches the minor axis at t.

8. In an ellipse prove that  $SP \cdot S'P = CD^2$ . If CP, CD are conjugate semi-diameters of an ellipse, prove that the tangents drawn from D to the circle described upon the minor axis as diameter are parallel to the focal distances of P.

9. Show that any tangent to a hyperbola and the asymptotes form a triangle of constant area.

Any two tangents are drawn to a hyperbola, and their points of intersection with the asymptotes are joined; prove that the joining straight lines are parallel.

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ALGEBRA.

HONOURS.

TWO HOURS.

1. Solve the equation—

$$\begin{aligned} 2(x-a)(y-a) &= a^2 \\ 4(x^2+y^2) &= 25a^2 \end{aligned}$$

2. Explain Horner's method of approximating to the real roots of an equation.

Prove that there is a root of the equation

$$x^5 - 5x^3 + 8x^2 - 10x + 4 = 0$$

between 1 and 2, and find its value correct to three places.

3. The equation  $x^3 + px^2 + qx + r = 0$  has roots  $a, \beta, \gamma$ ; find the value of the sums of the products of  $a, \beta, \gamma$  taken one at a time, two at a time, three at a time in terms of  $p, q, r$ ;

also find the value of  $\Sigma \frac{a\beta}{a+\beta}$ .

4. State what is meant by the sum of an infinite series

(i.) When the terms are constant,

(ii.) When the terms are finite and continuous functions of  $x$ .

Write down a necessary and sufficient condition for conveyance in each case. Apply it to

(i).  $1 - \frac{1}{2} + \frac{1}{3} - \frac{1}{4}$ , etc.

(ii.)  $\frac{x}{x+1} + \frac{x}{(x+1)(2x+1)} + \frac{x}{(x+1)(2x+1)(3x+1)} + \dots$

5. State and prove the Exponential Theorem—

Shew that  $1 + \frac{2^3}{2!} + \frac{3^3}{3!} + \frac{4^3}{4!} + \dots = 5e$ .

6. If two infinite series in  $x$  are equal for all values of  $x$  for which they are convergent, then the coefficients of the same powers of  $x$  in the two series are equal.

7. Find the sum of  $n$  terms of the series whose general term is  $1 \div \{(a+n-1b)(a+nb)(a+n+1b) \dots (a+n+r-1b)\}$ , and find the sum to  $n$  terms of

$$\frac{1}{3.4.7} + \frac{1}{4.5.8} + \frac{1}{5.6.9} + \dots$$

8. Shew that if from a determinant a new determinant is formed by adding two rows (or columns) for a new row (or column), the others remaining the same, then the new determinant is equal to the old.

Prove that 
$$\begin{vmatrix} 2a & 2a & a-b-c \\ b-c-a & 2b & 2b \\ 2c & c-a-b & 2c \end{vmatrix} = (a+b+c)^3$$

## TRIGONOMETRY.

### HONOURS.

TWO HOURS.

1. The parts of a triangle as measured are  $A = 30^\circ$   $b = 5\sqrt{3}$  feet;  $a = 5$  feet. If an error of  $1''$  has been made in measuring  $A$ , find the corresponding error in  $B$ .

2. Find a formula for the in-radius of a triangle.

If  $I_1, I_2, I_3$  are the centres of the three escribed circles, shew that the area of the triangle

$$I_1 I_2 I_3 = 8R^2 \cos \frac{A}{2} \cos \frac{B}{2} \cos \frac{C}{2}.$$

3. If the bisectors of the angles A, B, C of a triangle meet the opposite sides in D, E, F, prove that

$$\frac{\cos \frac{A}{2}}{AD} + \frac{\cos \frac{B}{2}}{BE} + \frac{\cos \frac{C}{2}}{CF} = \frac{1}{a} + \frac{1}{b} + \frac{1}{c}.$$

4. Enunciate De Moivre's theorem.

Assuming the theorem to hold when the index is a positive integer, prove it when the index is a positive fraction.

If  $a = \cos 2\alpha + i \sin 2\alpha$ , and  $b, c, d$  have similar values, prove that

$$ab + cd = 2 \cos(\alpha + \beta - \gamma - \delta) [\cos(\alpha + \beta + \gamma + \delta) + i \sin(\alpha + \beta + \gamma + \delta)]$$

5. Prove that

$$\sin x = x - \frac{x^3}{3} + \frac{x^5}{5} - \dots + (-1)^{r-1} \frac{x^{2r-1}}{2r-1} + (-1)^r R,$$

where  $0 < R < \frac{x^{2r+1}}{2r+1}$

Prove that

$$\frac{1}{6} \sin^3 \theta = \frac{\theta^3}{3} - \frac{(1+3^2)\theta^5}{5} + (1+3^2+3^4) \frac{\theta^7}{7} - \dots$$

6. Shew that

$$\log(a + i\beta) = \frac{1}{2} \log(a^2 + \beta^2) + i \tan^{-1} \frac{\beta}{a}.$$

Separate the real and imaginary parts in

$$\log[(a + ib)^{c+id}]$$

7. Sum the following series

(i.)  $\sin^2 \alpha + \sin^2 2\alpha + \sin^2 3\alpha \dots$  to  $n$  terms.

(ii.)  $\sin \theta \cos \theta + \frac{\sin 2\theta \cos^3 \theta}{2} + \frac{\sin 3\theta \cos^5 \theta}{3} \dots$  to infinity.

8. Prove that

$$\frac{1}{1 + l \cos \theta} = \frac{1}{\sqrt{1 - l^2}} [1 - 2n \cos \theta + 2n \cos 2\theta - \dots]$$

$$\text{where } l = \frac{2n}{1 + n^2}$$

MECHANICS.

HONOURS.

TWO HOURS.

1. A smooth sphere rests against a smooth vertical wall, and is supported by a smooth wedge resting on a rough horizontal table. Find the angle of the wedge.
2. A particle is moving in a straight line with acceleration  $f$ ; if it start from rest it will attain in time  $t$  a velocity  $ft$ , therefore if it start with velocity  $V$  it will attain a velocity  $V+ft$ . In moving from rest through distance  $s$ , it attains velocity  $\sqrt{2fs}$ , therefore in starting with initial velocity  $V$  and moving over distance  $s$ , it attains velocity  $V + \sqrt{2fs}$ . Explain clearly why the first argument is true and the second one untrue.
3. State the Principle of Work, and employ it to show that when four equal rods are jointed together in the shape of a rhombus, and the opposite points are connected by strings forming the diagonals, the tensions of the strings are as their lengths.
4. Prove that the time of sliding down a smooth chord of a vertical circle, drawn from the highest point of the circle, is constant.  
A number of particles slide down radii of a vertical circle starting from the circumference. Find the locus of the points where these particles have the same velocity  $V$ .
5. When an impulse acts on a body in any direction, the work done is equal to the product of the impulse and the mean of the initial and final velocities estimated in the direction of the impulse.  
A shot of mass  $m$  just penetrates a target of mass  $M$  and thickness  $t$ , which is free to move. How far would it have penetrated a mass of similar material held fixed?
6. The length of an inclined plane is  $l$ : two masses  $2m$  and  $m$  are joined by a string of length  $l$ , the mass  $2m$  at the bottom. Being then placed along a line of greatest slope of the plane, they are kept in equilibrium by a mass  $2m$  hanging freely. If the upper mass be gently pushed over the edge, how long will it be before the lower mass reaches the top, and what will its velocity be there?



7. If two particles are projected under gravity from the same point at the same time, but with different velocities in different directions, the straight lines joining the simultaneous positions of the particles are all parallel?
8. A particle is moving with uniform velocity in a circle. Find the magnitude and direction of the acceleration under which it is moving.

The rule for the super-elevation of one rail above the other in a railway curve is

$$\text{Elevation of outer rail in inches} = \frac{4W \cdot V^2}{5R}$$

where  $W$  = width of gauge in feet,  $V$  the velocity in miles per hour,  $R$  the radius of the curve in feet. Shew that this rule is theoretically correct.

9. What is meant by the dimensions of a physical quantity? If the unit of force is 4 lb. weight, and the unit of acceleration (referred to a foot and a second as units) is 2, find the unit of mass.

## CONIC SECTIONS.

### HONOURS.

TWO HOURS.

1. Prove that the perpendicular distance from  $(x_0, y_0)$  to the line

$$ax + by = c \quad (c > 0)$$

is

$$\pm \frac{ax_0 + by_0 - c}{\sqrt{a^2 + b^2}}$$

according as  $(x_0, y_0)$  is on the opposite side, or on the same side of the line as the origin.

2. Draw the lines

$$3x + 4y = 15$$

$$4x + 3y = 12.$$

Find the coordinates of their point of section, and the equations of the lines bisecting the angle between them, distinguishing the two lines.

3. Prove that the equation

$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$$

represents two straight lines if

$$\begin{vmatrix} a & h & g \\ h & b & f \\ g & f & c \end{vmatrix} = 0,$$

and *write down* the condition that the lines should include an angle  $\alpha$ .

4. Prove that the coordinates of any point on the parabola

$$y^2 = 4ax,$$

may be expressed as  $(at^2, 2at)$ , and interpret the parameter  $t$ .

The normals at L and L', the extremities of the latus rectum, meet the curve again at Q and Q'. Prove that  $QQ' = 12a$ .

5. Prove that the locus of the middle points of chords of the parabola  $y^2 = 4ax$  parallel to  $y = x \tan \theta$  is the line

$$y = 2a \cot \theta.$$

6. Discuss the ellipse whose equation is

$$4x^2 + y^2 + 4y = 0,$$

finding the coordinates

(i.) of its centre,

(ii.) of its foci,

(iii.) of the extremities of its axes,

and the value of its eccentricity.

7. Find the equation of the tangents from  $(x_0, y_0)$  to the conic

$$ax^2 + by^2 = 1,$$

and deduce the equation of the director circle.

8. Prove that the portion of the tangent to a hyperbola which is terminated by the asymptotes is bisected at the point of contact.

The tangent at P to a hyperbola meets the asymptotes in T, T' and the normal at P meets the transverse axis in G. Shew that the triangle TGT' remains similar to itself as P varies.

MARCH EXAMINATION.

ccxxxiii.

DIFFERENTIAL CALCULUS.

HONOURS.

TWO HOURS.

1. What is meant by the statement

$$\lim_{x \rightarrow 0} x^x = 1?$$

Show that  $\frac{\log x}{x-1}$  when  $x = 1 + \frac{1}{10^n}$ , and  $n > 0$ , lies between 1 and  $1 - \frac{1}{2 \cdot 10^n}$ , and deduce the limit of the expression as  $x$  approaches unity.

2. Differentiate from first principles  $x^2$  and  $\cos 2x$ .  
Find the first differential coefficients of

$$(i.) \frac{at+b}{ct+d} \quad (ii.) \frac{(t-1)(t-2)}{(t+1)(t+2)}$$

with regard to  $t$ .

3. A ladder 25 feet long is leaning against a vertical wall. The foot of the ladder is moved away from the wall along the horizontal surface of the ground in a direction perpendicular to the wall at a uniform rate of 10 ft. per min. Find the rate in feet per sec. at which the ladder is descending on the wall when the foot is 10 ft. from the wall.

4. A point P moves along the straight line AB, starting from rest at A at time  $t=0$ . If the distance AP is  $x$  yards after  $t$  minutes, and if

$$x = 6t + t^2,$$

find

- (i.) the velocity and acceleration in feet per second at the end of the first minute :  
(ii.) the space described, and the velocity added in the second minute.

Explain why the first results of (i.) and (ii.) disagree, and the second agree.

5. Show from geometrical reasoning that the curve

$$y = f(x)$$

will have a turning point where  $x = x_0$  if  $\frac{dy}{dx}$  changes sign as  $x$  pass through this value.

Find the maximum and minimum ordinates and the maximum slope of the curve

$$= x^3 - 6x^2 + 12.$$

6. Differentiate :—

(i.)  $e^x \left( \frac{1+x}{1-x} \right)^{\frac{1}{2}}$

(ii.)  $\log \left( \frac{1+x}{1-x} \right)^{\frac{1}{2}}$

(iii.)  $\sqrt{\frac{\sqrt{1+x^2}-x}{\sqrt{1+x^2}+x}}$

7. Find the equation of the tangent at the point where  $x = x_0$  to the curve

$$y = \frac{c}{2} \left( e^{\frac{x}{c}} + e^{-\frac{x}{c}} \right)$$

If PM is the ordinate of this curve at the point P, and PG is the normal, prove that the projection of PM upon PG is independent of the position of P.

8. Draw the curve

$$y = \sec^{-1} x$$

stating the limitations we impose upon  $y$  to make the function single valued.

Obtain  $\frac{dy}{dx}$  (i.) when  $1 < x < \infty$ ,

(ii.) when  $-\infty < x < -1$ .

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SECOND YEAR EXAMINATION.

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LATIN PROSE COMPOSITION AND TRANSLATION AT SIGHT.  
HONOURS.

The same papers as those set in the Third Year Examination.

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LATIN AUTHORS.

- 1, 2 and 3. Translate and comment upon Cicero's Letters;  
Catullus; Terence, Phormio.
  4. Scan the following lines, with such comments as you think  
called for—
    - (a) At vereor ut placari possit. Bono animo es:  
Ego redigam vos in gratiam, hoc fretus, Chreme.
    - (b) Vapula. Id quidem tibi jam fiet, nisi resistis, verbero.  
Familiariorem oportet esse hunc: minitatur malum.
    - (c) Quia primas partes qui aget, is erit Phormio.
    - (d) Sive in Hyrcanos Arabesve molles  
Seu Sagas sagittiferosque Parthos.
    - (e) Tua nunc opera meae puellae  
Flendo turgiduli rubent ocelli.
- 

ROMAN HISTORY.

HONOURS.

ONE HOUR AND A HALF.

1. "In 129 B.C. the Commission was shelved; but a vast amount  
of public land had been resumed by the State and divided  
in small allotments, *for* the Census list increased from  
319,000 in 131 B.C. to 395,000 in 125 B.C." (*Taylor*).  
Discuss this statement.

2. "In his dealings with the magistrates, Sulla showed the same intention of making all subordinate to the Senate."

Comment on this.

3. State the legal question at issue between Cæsar and the Senate.
4. Discuss Pompey as a politician.
5. State the authorities for the history of the period between the Tribunate of Ti. Gracchus and the death of Cicero, and estimate their value.

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GREEK—SENIOR CLASS.

PROSE COMPOSITION.

HONOURS.

Translate into Greek Prose—

It was necessary for Cæsar to visit Apollonia, in order to leave his wounded there, to pay his army, to encourage his friends in those parts and to put garrisons in their towns. But he did all this in the least possible time, for he was afraid that Domitius might be attacked by Pompeius, and he advanced to join him with all speed. He explains his plan of the future campaign in a few words in his history. If Pompeius should march against Domitius, who was in Macedonia, he must leave the coast and the stores which he had collected in Dyrrhacium, he would be separated from his magazines of food and all his supplies, and would be compelled to fight Cæsar on equal terms. If Pompeius should cross over to Italy, Cæsar would join Domitius and march through Illyricum, the country on the east side of the Hadriatic, to protect Italy. Further, if Pompeius should attack Apollonia and Oricum and attempt to cut off Cæsar from all communication with the coast, Cæsar would blockade Scipio in his camp, for he assumed that Scipio would not meet him in the field, and thus Pompeius would be forced to come to Scipio's aid.

# MARCH EXAMINATION.

οιxxxvii.

## GREEK—SENIOR CLASS.

### UNSEEN TRANSLATION.

#### HONOURS.

1. ἀλλὰ νῆ Δία τριήρη ἐπέδωκεν· εἰ μὲν, ὦ ἄνδρες Ἀθηναῖοι, φιλοτιμίης ἕνεκα ταύτην ἐπέδωκεν, ἣν προσήκει τῶν τοιούτων ἔχειν χάριν, ταύτην ἔχετε αὐτῇ καὶ ἀποδότε, ὑβρίζειν δὲ μὴ δῶτε· οὐδενὸς γὰρ πράγματος οὐδ' ἔργου τοῦτο συγχωρητέον. εἰ δὲ δὴ καὶ δειλίας καὶ ἀνανδρίας ἕνεκα δειχθήσεται τοῦτο πεποιηκώς, μὴ παρακρουσθῆτε. πῶς οὖν εἴσεσθε; ἐγὼ καὶ τοῦτο διδάξω. ἐγένοντο εἰς Εὐβοίαν ἐπιδόσεις παρ' ὑμῖν πρῶται· τούτων οὐκ ἦν Μειδίας, ἀλλ' ἐγὼ, καὶ συντριήραρχος ἦν μοι Φιλῖνος ὁ Νικοστράτου. ἕτεραι δειντεραι μετὰ ταῦτα εἰς Ὀλυνθον· οὐδὲ τούτων ἦν Μειδίας. καίτοι τὸν γε δὴ φιλότιμον πανταχοῦ προσῆκεν ἐξετάζεσθαι. τρίται νῦν αὖται γεγόνασιν ἐπιδόσεις· ἐνταῦθα ἐπέδωκε. πῶς; ἐν τῇ βουλῇ γιγνομένων ἐπιδόσεων παρὼν οὐκ ἐπεδίδου τότε· ἐπειδὴ δὲ πολιορκεῖσθαι τοὺς ἐν Ταμύναις στρατιώτας ἐξηγγέλλετο, καὶ πάντας ἐξιέναι τοὺς ὑπολοίπους ἱππέας, ὧν εἰς οὗτος ἦν, προουβούλευσεν ἡ βουλή, τῆνικαὐτο φοβηθεὶς τὴν στρατείαν ταύτην παρελθὼν ἐπέδωκεν. τῇ δῆλον, ὅτι τὴν στρατείαν φείρων, οὐ φιλοτιμία, τοῦτ' ἐποίησεν; τοῖς μετὰ ταῦτα πραχθεῖσιν ὑπ' αὐτοῦ. τὸ μὲν γὰρ πρῶτον οὐκ ἀνέβαινεν ἐπὶ τὴν ναῦν ἣν ἐπέδωκεν, ἀλλὰ τὸν μέτοικον ἐξέπεμψε τὸν Αἰγύπτιον, Πάμφιλον, αὐτὸς δὲ μένων ἐνθάδε τοῖς Διονυσίοις διεπράττετο ταῦτ' ἐφ' οἷς νυνὶ κρίνεται· ἐπειδὴ δὲ ὁ στρατηγὸς Φωκίων μετεπέμπετο τοὺς ἐξ Ἀργούρας ἱππέας ἐπὶ τὴν διαδοχήν, τότε ὁ δειλὸς καὶ κατάρματος οὗτος ἰλιπὼν τὴν τάξιν ταύτην ἐπὶ τὴν ναῦν ἤχκετο, καὶ ὧν ἱππαρχεῖν ἠξίωσε παρ' ὑμῖν ἱππέων, τοίτοις οὐ συνεξήλθεν. εἰ δ' ἐν τῇ θαλάττῃ κίνδυνός τις ἦν, εἰς τὴν γῆν δῆλον ὅτε ἤχετ' ἄν.
2. θωμάζω ὦν τῶν διουρισάντων καὶ διελόντων Λιβύην τε καὶ Ἀσίην καὶ Εὐρώπην. οὐ γὰρ σμικρὰ τὰ διαφέροντα αὐτέων ἐστί. μήκει μὲν γὰρ παρ' ἀμφοτέρας παρήκει ἡ Εὐρώπη, εὐρεος δὲ πέρι οὐδὲ συμβαλεῖν ἀξίη φαίνεται μοι εἶναι. Λιβύη μὲν γὰρ ὀηλοῖ ἰωυτὴν ἐοῦσα περίρρυτος πλὴν ὅσον αὐτῆς πρὸς τὴν Ἀσίην οὐρίζει, Νεκῶ τοῦ Αἰγυπτίων βασιλέως πρώτου τῶν ἡμεῖς ἴδμεν καταδέξαντος, ὃς ἐπείτε τὴν ἐιώρυχα ἐπαύσατο ὀρύσσω τὴν ἐκ τοῦ Νεῖλου διέχουσαν ἐς τὸν Ἀράβιον κόλπον, ἀπέπεμψε Φοίνικας ἄνδρας πλοίοισι, ἐντειλάμενος ἐς τὸ ὀπίσω δι' Ἡρακλέων στηλέων διεκπλῶειν ἕως ἐς τὴν βορηίην θάλασσαν

και οὕτω ἐς Αἴγυπτον ἀπικνεῖσθαι. ὁρμηθέντες ὧν οἱ Φοίνικες ἐκ τῆς Ἐρυθρῆς θαλάσσης ἔπλων τὴν νοτίην θάλασσαν· ὅκως δὲ γίνοιτο φθινόπωρον, προσίσχοντες ἂν σπείρεσκον τὴν γῆν, ἵνα ἐκάστοτε τῆς Λιβύης πλώνοντες γινοίατο, καὶ μένεσκον τὸν ἄμητον. θερίσαντες δ' ἂν τὸν σῖτον ἔπλων, ὥστε δύο ἐτέων διεξελθόντων τρίτῳ ἔτει κάμψαντες Ἡρακλέους στήλας ἀπίκοντο ἐς Αἴγυπτον. καὶ ἔλεγον ἐμοὶ μὲν οὐ πιστά, ἄλλω δὲ δὴ τεφ, ὡς περιπλώνοντες τὴν Λιβύην τὸν ἥλιον ἔσχον ἐς τὰ δεξιά.

3. Τεθνάμεναι γὰρ καλὸν ἐπὶ προμάχοισι πεσόντα  
 ἄνδρ' ἀγαθὸν περὶ ἧ πατρίδι μαρνάμενον.  
 τὴν δ' αὐτοῦ προλιπόντα πόλιν καὶ πύονας ἄγρους  
 πτωχεύειν πάντων ἔστ' ἀνιηρότατον,  
 πλαζόμενον σὺν μητρὶ φίλῃ καὶ πατρὶ γέροντι  
 παισὶ τε σὺν μικροῖς κουριδίῃ τ' ἀλόχῳ.  
 ἐχθρὸς μὲν γὰρ τοῖσι μετέσσεται, οὓς κεν ἵκηται  
 χρησμοσύνη τ' εἰκῶν καὶ στυγερῇ πενίῃ,  
 αἰσχύνει τε γένος, κατὰ δ' ἀγλαὸν εἶδος ἐλέγχει  
 πᾶσα δ' ἀτιμία καὶ κακότης ἔπεται.  
 εἰ δ' οὕτως ἀνδρός τοι ἀλωμένου οὐδεμι' ὥρη  
 γίγνεται, οὐτ' αἰδῶς οὐτ' ὅπιν οὐτ' ἔλεος,  
 θυμῷ γῆς περὶ τῆσδε μαχώμεθα καὶ περὶ παίδων  
 θνήσκωμεν ψυχέων μηκέτι φειδόμενοι.  
 ὦ νέοι, ἀλλὰ μάχεσθε παρ' ἀλλήλοισι μένοντες,  
 μηδὲ φυγῆς αἰσχυρᾶς ἄρχετε μηδὲ φόβου,  
 ἀλλὰ μέγαν ποιεῖσθε καὶ ἄλκιμον ἐν φρεσὶ θυμόν,  
 μηδὲ φιλοψυχεῖτ' ἀνδράσι μαρνάμενοι·  
 τοὺς δὲ παλαιοτέρους, ὧν οὐκέτι γούνατ' ἐλαφρά,  
 μὴ καταλείποντες φεύγετε, τοὺς γενηρούς·  
 αἰσχυρὸν γὰρ ᾗ τοῦτο μετὰ προμάχοισι πεσόντα  
 κεῖσθαι πρόσθε νέων ἄνδρα παλαιότερον,  
 ἤδη λευκὸν ἔχοντα κάρη πολιόν τε γένειον,  
 θυμὸν ἀποπνεύοντ' ἄλκιμον ἐν κονίῃ,  
 καὶ χροῖα γυμνωθέντα· νέοισι δὲ πάντ' ἐπέοικεν,  
 ὄφρ' ἐρατῆς ἡβῆς ἀγλαὸν ἄνθος ἔχῃ·  
 ἀνδράσι μὲν θηητὸς ἰδεῖν, ἐρατὸς δὲ γυναιξίν,  
 ζωὸς ἐών, καλὸς δ' ἐν προμάχοισι πεσών.  
 ἀλλὰ τις εὖ διαβάς μενέτω ποσὶν ἀμφοτέροισιν  
 στηριχθεὶς ἐπὶ γῆς, χεῖλος ὁδοῦσι δακῶν.



## TOPOGRAPHY OF ATHENS.

## HONOURS.

*Not more than SIX questions to be attempted. Answers should be freely illustrated by means of sketch maps. Accuracy with regard to the points of the compass is important.*

1. Briefly but clearly describe the probable course of the city wall (western section) of Athens between the Acharnian Gate and the neighbourhood of the temple of Olympian Zeus; mention the Gates in their proper order, and briefly indicate the evidence on which their location and identification are based.
2. Draw a sketch map of the Peiraic peninsula, assigning names to the most important features of land and water. Give briefly the grounds upon which the hitherto accepted identification of the Athenian harbours is attacked, and assign the names according to the new view.
3. Describe the remains of the Pnyx, and give the evidence upon which the identification is based. What other view has been held?
4. Σταθεὶς δ' ὁ Παῦλος ἐν μέσῳ τοῦ Ἀρείου πάγου κ.τ.λ. (Acts xvii., 22.) Discuss the conflicting interpretations of the above passage, adducing the evidence in support of the view which commends itself to you.
5. If Paul really stood on the hill Areiopagus, what would be the main features of the view before him as he looked northwards? (In answering this, the main elements, both natural and artificial, should be enumerated in proper sequence.)
6. What is meant in Athenian Topography by the Enneakrounos Episode? Give the evidence for the location of the Enneakrounos.
7. Clearly but briefly indicate the natural routes leading into the Athenian plain. Give historical examples of the employment of each.
8. ἐξιώντι μοι ἐς Κυνόσαργες καὶ γενομένῳ μοι κατὰ Ἰλισσὸν . . . Κλεινίαν ὁρῶ τὸν Ἀξιόχου θέοντα ἐπὶ Καλλιρρόην (Plato). What was the Kynosarges; where was it; on what evidence is the identification made?
9. What were the chief natural and artificial features falling within the view of an Athenian sitting in the κοῖλον of the Dionysiac Theatre, say about 300 B.C.?

10. Describe the remains of the Asklepieion as laid bare by excavation.
11. ὑπὲρ δὲ τὸν Κεραμεικὸν καὶ στοὰν τὴν καλουμένην βασιλείον ναὸς ἐστὶν Ἡφαίστου (*Paus*). Identify this temple, and say what alternative identifications have been proposed.
12. Describe the remains of the Dipylon Gate, and discuss the question of its identity with the Sacred Gate.
13. ἐς τὴν Πάρνηθ' ὀργισθεῖσαι φροῦδαι κατὰ τὸν Λυκαβηττόν (*Arist*). Identify Lycabettos, giving the evidence for the identification.
14. ἔνθα προσβόρροις πέτραις  
Παλλάδος ὑπ' ὀχθῇ τῆς Ἀθηναίων χθονὸς  
Μακρὰς καλοῦσι γῆς ἄνακτες Ἀτθίδος (*Eurip.*).  
Explain the topographical allusion.
15. ἔστι δὲ ὁδὸς ἀπὸ τοῦ Πρυτανείου καλουμένη Τρίποδες (*Paus.*).  
Trace the probable course of this street. What remains connected with it are yet visible?
16. δύο δὲ Κεραμεικοὶ Ἀθήνησιν (*Suid.*).  
Explain this.

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ENGLISH I.

HONOURS.

1. Translate the Old English of the following extracts, and criticise it as a rendering of the Latin.  
 Wæs ðis īgland ēac geweorðod mid ðāem æðelestum ceastrum  
 —ānes wana ðritigum—ðā-ðe wæron mid weallum, and  
 torrum, and geatum, and ðāem trumestum locum  
 getimbrede, būtan oðrum læssan unrīme ceastra.  
 And for-ðām-ðe ðis īgland under ðāem selfum norðdæle  
 middangeardes nīehst līð, and lēohte niht on sumera  
 hæfð—swā ðæt oft on midre niht geflit cymð ðāem  
 behealdendum, hwæðer hit sīe ðe æfenglōmung, ðe on  
 morgen dagung—is on ðāem sweetol, ðæt ðis īgland  
 hæfð micle lengran dagas on sumera, and swā ēac niht  
 on wintra, ðonne ðā sūðdælas middangeardes.  
 Erat et civitatibus quondam viginti et octo nobilissimis  
 insignita, praeter castella innumera, quae et ipsa muris,  
 turribus, portis, ac seris erant instructa firmissimis.

Et quia prope sub ipso septentrionali vertice mundi jacet, lucidas æstate noctes habet; ita ut medio sæpe tempore noctis in quaestionem veniat intuentibus, utrum crepusculum adhuc permaneat vespertinum, an jam advenerit matutinum . . . : unde etiam plurimae longitudinis habet dies æstate, sicut et noctes contra in bruma.

2. Translate, with notes on the form of the underlined words, passages from Cook's *First Book of Old English*.

3. Translate, with comments on the style.

4. (a) Give the principal parts of the following verbs—*Sealdon, funde, sewen* (segen), *hatan, wiste*.

(b) Decline in Old English—*This green tree; a bright moon; his second wife*.

(c) Explain the grammar of the following expressions—*Du ealda mann; dæges and nihtes; he hiere ðæs ðancode; micelre stefne cleopedon; feower hund punda gewihte seolfres; hand on handa; nu bidde wē ðē ðæt ðū gecēose æenne; ðē self; hē hātte Ardalius*.

5. Translate (at sight)—

On ðām dagum rixode Æþelbyrht cyning on Cantwarabyrig riclice, and his rice wæs āstreht fram ðære micclan ēa Humbre oð sūðsæ. Augustinus hæfde genumen wealhstōdas of Francena rice, swā swā Grēgōrius him bēbead; and hē ðurh ðære wealhstōda mūð þām cyniuge and his lēode Godes word bodade; hū sē mildheorta Hælend mid his āgenre ðrōwunge þysne scyldigan middaneard ālysde, and gelēaffullum mannum heofonan rices infær geopenode. þā andwyrde sē cyning Æþelbriht Augustine, and cwæð þæt hē fægere word and behāt him cýdde; and cwæð þæt hē ne mihte swā hrædlīce þone ealdan gewunan ðe hē mid Angelcynne hēold forlætan; cwæð þæt hē mōste frēolīce ðā heofonlican lāre his lēode bodian, and þæt hē him and his gefērum bigleofan ðēnian wolde.

6. Render into Old English—

The merchant sells his goods dearer than he buys them. The king ordered the harp to be given to Apollonius, and when he played all thought him to be Apollo, the heathen deity. Blame not the translator if he write not correctly, word for word. On the seventh day he rested from all the work which he had done.

SECOND YEAR IN ARTS.

ENGLISH II.

HONOURS.

1. Translate and explain passages from Skeat's *Specimens*.
2. Explain (*a*) the allusions, (*b*) the peculiarities of grammar, and (*c*) the meaning of selected passages.
3. Estimate, historically and in point of style, the certain examples of English prose.
4. Describe the chief models of English satirical poetry between 1394 and 1579, with special reference to the development of satiric method and verse-form.
5. What special features render *The Kingis Quair*, *The Nut-Brown Maid*, *The Thrissill and the Rois*, *Surrey's Sonnets*, and *Ralph Roister Doister*, memorable in English Literature?

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FRENCH I.—SENIOR.

PROSE COMPOSITION AND TRANSLATION AT SIGHT.

HONOURS I.

1. Translate into French—

COBBETT'S INCONSISTENCIES.

He pays off both scores of old friendship and newly-acquired enmity in a breath, in one perpetual volley, one raking fire of "arrowy sleet" shot from his pen. However his own reputation or the cause may suffer in consequence, he cares not one pin about that, so that he disables all who oppose, or who pretend to help him. In fact, he cannot bear success of any kind, not even of his own views or party; and if any principle were likely to become popular, would turn round against it to show his power in shouldering it on one side. In short, wherever power is, there he is against it: he naturally butts at all obstacles, as unicorns are attracted to oak-trees, and feels

his own strength only by resistance to the opinions and wishes of the rest of the world. To sail with the stream, to agree with the company, is not his humour. If he could bring about a Reform in Parliament, the odds are that he would instantly fall foul of and try to mar his own handiwork; and he quarrels with his own creatures as soon as he has written them into a little rogue—and a prison. I do not think this is vanity or fickleness so much as a pugnacious disposition, that must have an antagonistic power to contend with, and only finds itself at ease in systematic opposition. If it were not for this, the high towers and rotten places of the world would fall before the battering-ram of his hard-headed reasoning; but if he once found them tottering he would apply his strength to prop them up and disappoint the expectations of his followers.

2. Translate (at sight)—

- (a) L'eau ronge la côte; de grands morceaux de terre et de pierre, durcis par son choc, lèvent à cinquante pieds du rivage leur échine brune et jaune, usés, fouillés, mordus, déchiquetés, creusés par la vague, semblables à un troupeau de cachalots échoués. Le flot aboie ou beugle dans leurs entrailles minées, dans leurs profondes gueules béantes; puis, quand ils l'ont engouffré, ils le vomissent en bouillons et en écume, contre les hautes vagues luisantes qui viennent éternellement les assaillir. Des coquilles, des cailloux polis, se sont incrustés sur leur tête. Les ajoncs y ont enfoncé leurs tiges patientes et le fouillis de leurs épines; ce manteau de bourre est seul capable de se coller à leurs flancs et de durer contre la poussière de la mer. A gauche, une traînée de roches labourées et décharnées s'allonge en promontoire jusqu'à une arcade de grève durcie, que les hautes marées ont ouverte, et d'où la vue par trois côtés plonge sur l'Océan. Sous la bise qui siffle, il se hérissé de flots violâtres; les nuages qui passent le marbrent de plaques plus sombres; si loin que le regard se porte, c'est une agitation malade de vagues ternes, entre-croisées et disloquées, sorte de peau mouvante qui tressaille tordue par une fièvre intérieure. De temps en temps une raie d'écume qui les traverse marque un soubresaut plus violent. Cà et là, entre les intervalles des nuages, la lumière découpe quelques

champs glauques sur la plaine uniforme; leur éclat fauve, leur couleur malsaine, ajoutent à l'étrangeté et aux mesures de l'horizon. Ces sinistres lueurs changeantes, ces reflets d'étain sur une houle de plomb, ces scories blanches collées aux roches, cet aspect gluant des vagues donnent l'idée d'un creuset gigantesque, dont le métal bouillonne et luit.

- (b) Dehors, c'est la ruine et c'est la solitude.  
 On entend, dans sa rauque et vaste inquiétude,  
 Passer sur le hallier par l'été rajeuni  
 Le vent, onde de l'ombré et flot de l'infini.  
 On a remis partout des vitres aux verrières  
 Qu'ébranle la rafale arrivant des clairières ;  
 L'étrange dans ce lieu ténébreux et rêvant,  
 Ce serait que celui qu'on attend fût vivant ;  
 Aux lueurs du sept-bras, qui fait flamboyer presque  
 Les vagues yeux épars sur la lugubre fresque,  
 On voit le long des murs, par place, un escabeau,  
 Quelque long coffre obscur à meubler le tombeau,  
 Et des buffets chargés de cuivre et de faïence ;  
 Et la porte, effrayante et sombre confiance,  
 Est formidablement ouverte sur la nuit.  
 Rien ne parle en ce lieu d'où tout homme s'enfuit.  
 La terreur, dans les coins accroupie, attend l'hôte.  
 Cette salle à manger de titans est si haute,  
 Qu'en égarant, de poutre en poutre, son regard  
 Aux étages coufus de ce plafond hagard,  
 On est presque étonné de n'y pas voir d'étoiles.  
 L'araignée est géante en ces hideuses toiles  
 Flottant là-haut, parmi les madriers profonds  
 Que mordent aux deux bouts les gueules des griffons.  
 La lumière a l'air noire et la salle a l'air morte.  
 La nuit retient son souffie. On dirait que la porte  
 A peur de remuer tout haut ses deux battants.

3. (i.) "Marot est le dernier trouvère du Moyen-Age et le premier poète de la Renaissance."

Explain this.

- (ii.) Discuss the significance of Rabelais' romance.  
 (iii.) Summarize Montaigne's views on (a) education, (b) personal independence, and (c) legislative reform, and show their relation to the general spirit of the *Essais*.

(iv.) In what respects does Ronsard expand and complete the doctrine set forth by Du Bellay?

(v.) Give a short account of D'Aubigné's life and works.

## FRENCH II.—AUTHORS.—SENIOR.

## HONOURS.

1. Translate, extracts from Montaigne.
2. Translate, with notes, extracts from *Chefs-d'œuvre Poétiques de Marot, Ronsard, etc.*
3. Write down the English equivalents for the following expressions—*Lièvres cornus, ver-coquin, à mon corps défendant, faire la nique, tailler besogne, tondre sur un œuf.*

## GERMAN I.—SENIOR.

## PROSE COMPOSITION AND TRANSLATION AT SIGHT.

## HONOURS.

1. Translate into German—

It is always observable that silence propagates itself, and that the longer talk has been suspended, the more difficult it is to find anything to say. We began now to wish for conversation; but no one seemed inclined to descend from his dignity, or first to propose a topic of discourse. At last a corpulent gentleman, who had equipped himself for this expedition with a scarlet surtout and a large hat with a broad lace, drew out his watch, looked on it in silence, and then held it dangling at his finger. This was, I suppose, understood by all the company as an invitation to ask the time of day, but nobody appeared to heed his overture; and his desire to be talking so overcame his resentment, that he let us know of his own accord that it was past five, and that in two hours we should be at breakfast. His condescension was thrown away; we continued all obdurate; the ladies held up their heads; I amused myself with watching their behaviour; and of the other two, one seemed to employ himself in counting the trees as we drove by them, the other drew his hat

over his eyes and counterfeited a slumber. The man of benevolence, to show that he was not depressed by our neglect, hummed a tune and beat time upon his snuff-box.

2. Translate (at sight)—

„Von Ihrem Buch war die Rede; man spricht ja jetzt überall davon, so daß ich mich zuletzt schämen mußte, es nicht gelesen zu haben, obgleich ich nicht gerade verpflichtet bin, alle neuen Bücher zu kennen, von denen gesprochen wird, nicht einmal die von meinen Freunden. Aber Bester, was haben Sie da gemacht!“

„Doch hoffentlich nichts so Arges. Im schlimmsten Fall ein schlechtes Buch.“

„Was viel Schlimmeres, Freundchen: ein gutes Buch, ein Buch, das in allen Hauptsachen vollständig Recht und die große Mehrzahl der denkenden Menschen auf seiner Seite hat. Sie lachen? O diese jungen Leute! Sie meinen, in der Welt komme es darauf an, Recht zu haben. Als ob es etwas Anstößigeres, Unbequemerer, Polizeiwidrigeres geben könnte, als einen Menschen, der weder links noch rechts sieht, weder Vorsichten noch Rücksichten kennt, sondern die Dinge beim Namen nennt! Ein solcher Tollbreister möge in die thebaische Wüste gehen und dort den Steinen seine Weisheit vortragen. Aber wenn er sich einbildet, in unserm auf gegenseitiges Bemänteln und Beschönigen, auf Respect-Heuchelei vor verrottetem Kram, auf Ueberfirnissen uralter Schäden gegründeten Staat geduldet zu werden, wo man nicht einmal den Muth hat, in Museums-Katalogen den Humbug falscher Tausen zu beseitigen, geschweige denn andere Götzenbilder bei ihrem richtigen Namen zu nennen—sehen Sie, Freundchen, die Galle tritt mir in meine Satzconstruction, und ich weiß nicht mehr, wie ich angefangen habe. Aber das weiß ich, daß Sie mich solchen Büchern nie und nimmermehr Aussicht haben, in unserem theuren Vaterlande Carrière zu machen, und daß ich dies lebhaft bedaure.“

3. (a) Compare and contrast the English Translation of the Bible (1611) with Luther's.

(b) Explain the origin and arrangements of the Master song.

(c) Sketch briefly the career of Ulrich von Hutten.

(d) Describe the characteristics of the First Silesian School.

(e) Shortly characterise *Fischart*, *Dach*, *Logau*, *Spee*.



## GERMAN II.—AUTHORS.—SENIOR.

## HONOURS.

Translate, with the necessary explanations, extracts from *Liederbuch aus dem 16<sup>ten</sup> Jahrhundert*; Weise, Die drei ärgsten Erznarren.

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## STATICS AND DYNAMICS.

## HONOURS.

1. Prove that a system of co-planar forces acting on a rigid body can generally be reduced to a force of definite magnitude acting at any point and a couple.

If the body is in equilibrium, show that the sum of the *oblique* components of the forces obtained by resolving along two oblique axes vanishes.

2. A uniform heavy beam of length  $2a$  rests with one end on the inner surface of a smooth sphere of radius  $c$ , and the other against a smooth vertical wall which touches the sphere. The beam and the radius through its extremity make angles  $\phi$  and  $\theta$  with the horizon; prove that

$$2 \tan \phi = \tan \theta, \quad a \cos \phi = c \cos^2 \frac{\theta}{2}.$$

3. Prove that  $\bar{x} = \frac{\Sigma(m.r)}{\Sigma(m)}$  with the usual notation.

Express this formula in a form suitable for finding the centre of gravity of a rigid body.

Find the centre of gravity of a solid hemisphere, where the density at any point is proportional to its perpendicular distance from the base of the hemisphere.

4. A uniform heavy triangular lamina ABC is suspended successively from the vertices A and B. Show that, if any side in the second position is at right angles to its first position,  $5c^2 = a^2 + b^2$ .

5. Find the work done in stretching an elastic string.

An elastic string of unstretched length  $l$  is placed over a smooth sphere of radius  $a$ . The string descends until it forms a horizontal great circle on the sphere. Compare its weight with its coefficient of elasticity.

6. Find expressions for the component velocities and accelerations of a point parallel to two fixed directions at right angles.

A particle describes the circle  $x^2 + y^2 = a^2$  with a velocity whose component in direction  $Oy$  is constant. Find the acceleration.

7. Prove that the path of a projectile under gravity is a parabola.

If from a given point on an inclined plane two particles are projected with the same velocity in perpendicular directions in the same vertical plane, prove that the difference of their ranges is constant.

8. A particle falls from rest freely under gravity in a medium the resistance of which varies as the velocity. Find the velocity acquired, and the distance described in any time. Prove that the velocity of the particle has a limiting value which it cannot exceed.

9. A particle describes an ellipse under an attraction directed towards the centre. Find the law of force.

If the eccentricity is  $\frac{3}{4}$ , prove that the velocity at an extremity of the latus rectum is  $\frac{1}{2}$  of that at an extremity of the major axis.

10. Prove the equation

$$\frac{d^2u}{d\theta^2} + u^2 = \frac{P}{h^2u^2}$$

for motion in a central orbit.

Find the repulsive force from the pole under which the orbit  $a = r \cos 3\theta$  can be described.

Find also the velocity at the apse  $r = a$ , and the time taken to move from the apse to the point where  $r = a\sqrt{2}$ .

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## DIFFERENTIAL AND INTEGRAL CALCULUS.

### HONOURS

1. Draw the curve

$$y = \sec^{-1}x$$

stating the limitations we impose upon  $y$  to make the function single valued.

Obtain  $\frac{dy}{dx}$ , in the two cases

(i.)  $-\infty < x < -1$

(ii.)  $1 < x < \infty$

2. A rectangular sheet of metal has four equal square portions removed at the corners, and the sides are then turned up so as to form an open rectangular box. Show that when the volume of the box is a maximum, the depth will be

$$\frac{1}{3} \{a+b-\sqrt{a^2-ab+b^2}\}$$

where  $a, b$  are the sides of the original rectangle.

3. Taking the case of the surface

$$2z = ax^2 + by^2,$$

show that

$$dz = \frac{\delta z}{\delta x} dx + \frac{\delta z}{\delta y} \cdot dy,$$

explaining the notation.

Also sketch the proof of this theorem in the case of a function of two variables.

4. Obtain the equation of the tangent at  $(xy)$  to the curve  $f(x, y) = 0$  in the form

$$(X-x)\frac{\delta f}{\delta x} + (Y-y)\frac{\delta f}{\delta y} = 0.$$

Show that the tangent at  $((x_0 y_0))$  to the curve  $ay^3 = x(x^2 + y^2)$  meets the curve again at a point on the line

$$xy_0 + 2yx_0 = 0.$$

5. Obtain the following formulae for the radius of curvature

$$(i.) \rho = \frac{(1+y'^2)^{3/2}}{y''}$$

$$(ii.) \rho = r \frac{dr}{dp}$$

and show how the second may be applied to obtain the radius of curvature of the pedal of a curve whose  $p, r$  equation is given.

6. Obtain the equation of the epicycloid formed by the rolling of a circle of radius  $b$  upon a fixed circle of radius  $a$ .

Prove that in this curve

$$r^2 = a^2 + 4 \frac{(a+b)b}{(a+2b)^2} p^2.$$

cl.

## SECOND YEAR IN ARTS.

7. Evaluate the following Indefinite Integrals

$$(i.) \int \frac{3x+2}{x(x+1)^3} dx, \quad (ii.) \int \frac{x^3-1}{x^4+x^2+1} dx,$$

$$(iii.) \int \frac{\sqrt{x+a}-\sqrt{x+b}}{\sqrt{x+a}+\sqrt{x+b}} dx.$$

8. Prove the rule for the change of the variable from  $x$  to  $t$  in the integral

$$\int_a^b f(x) dx,$$

$f(x)$  being a single valued function of  $x$ , which varies continuously from  $a$  to  $b$  as  $t$  increases from  $a$  to  $\beta$ .

Prove that

$$\int_0^\infty f\left(x+\frac{1}{x}\right) \cdot \left(x-\frac{1}{x}\right) dx = \int_2^\infty f(x) \sqrt{x^2-4} dx.$$

9. Evaluate the following Definite Integrals :—

$$(i.) \int_0^{\frac{\pi}{2}} \sin^2 \theta \cos^3 \theta d\theta$$

$$(ii.) \int_0^a x^3 (2ax - x^2)^{3/2} dx$$

$$(iii.) \int_0^1 \frac{dx}{(1+x) \sqrt{1+2x-x^2}}$$

$$(iv.) \int_0^{\frac{\pi}{2}} \frac{dx}{(a^2 \sin^2 x + b^2 \cos^2 x)^2}$$

10. Establish a formula for the Rectification of a Plane Curve.

Prove that the length from the vertex up to an end of the Latus Rectum of the Parabola

$$y^2 = 4ax$$

is equal to  $a \{ \log(1 + \sqrt{2}) + \sqrt{2} \}$ .

## ANALYTICAL GEOMETRY AND DIFFERENTIAL EQUATIONS.

### HONOURS.

1. Find the equation of the asymptotes of the conic

$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0,$$

and shew that the conic is a hyperbola, parabola or ellipse according as  $ab - h^2$  is  $< =$  or  $> 0$ .

If  $\Delta = 0$  and  $ab - h^2 > 0$ , what is the nature of the curve?

2. Find the asymptotes and eccentricity of the conic

$$3x^2 + 4xy + y^2 + 3x - 2y = 4.$$

3. Shew that two parabolas can be drawn through the points of intersection of

$$3x^2 - 5xy - 2y^2 + x + y + 1 = 0$$

$$6x^2 - 5xy + y^2 + 2x - y + 2 = 0,$$

and that their axes are at right angles

4. If an equation to a straight line contains an arbitrary parameter to the second order, then the envelope of the line is a conic.

Find the envelope of  $lx + my = n$  when  $\frac{a}{l} + \frac{b}{m} = \frac{c}{n}$ ; and also of

the chord joining the ends of conjugate radii of an ellipse.

5. Find the polar reciprocal of one circle with respect to another.

If a system of confocal conics be reciprocated with respect to one of the foci, the reciprocal system is a system of coaxial circles, the radical axis being the reciprocal of the second focus, and the first focus a point circle of the system.

6. Describe the method of solution of the equation  $M + N \frac{dy}{dx} = 0$

where  $M, N$  are homogeneous functions of  $x$  and  $y$  of the same degree.

Shew how to solve an equation of the form

$$p = f\left(\frac{ax + by + c}{a'x + b'y + c'}\right).$$

7. What is a singular solution of a differential equation?

Discuss briefly the theory of these singular solutions, shewing how in some cases they may be obtained from the differential equation itself and also from the complete primitive.

Is  $y = 0$  a singular solution or a particular integral of

$$\frac{dy}{dx} = y(\log y)^2?$$

8. Investigate the condition that the equation of the first order  $Mdx + Ndy = 0$  should be exact, and prove that this condition is sufficient as well as necessary.

Solve the equations—

(i.)  $(x^2 + 4xy + 3y + 1)dx + (2x^2 + 4y + 3x)dy = 0.$

(ii.)  $z \sin y dx + (x \cos y + 2y)z dy + (x \sin y + y^2)dz = 0.$

9. Discuss the general solution of the linear equation with constant coefficients, and the special cases where the auxiliary equation has (i.) equal real roots, (ii.) equal imaginary roots.

Solve the equations—

$$(D-2)^2(D-3)(D-4)y = e^{4x} + x^2,$$

$$(D^2+2)^2(D-1)y = \sin^2 x,$$

$$x^3 D^3 y + 3x^2 D^2 y + x D y + y = 0.$$

## PROBLEMS.

### HONOURS.

1. Show that the area included between the curves

$$y^2 = 4ax$$

$$x^2 = 4ay$$

$$4xy = a^2 \text{ (on the side of the last curve remote from the origin)}$$

$$\text{is } a^2 \left( \frac{21}{4} - \log \sqrt{2} \right).$$

2. A point P moves so that the product of its distances from two points S and S' whose coordinates are respectively  $(a, 0)$  and  $(-a, 0)$  is  $c^2$ . Find the equation of the curve, and discuss its shape

(i.) when  $c^2 > a^2$

(ii.)  $c^2 = a^2$

(iii.)  $c^2 < a^2$ .

3. Writing the equation of the curves of example (2) in the form

$$rr' = c^2$$

find the relation between the angles the tangent at P makes with  $r$  and  $r'$ , and prove the following construction

for the normal at P, namely : From PS, or PS produced, cut off  $PQ=PS'$ , and from PS', or PS' produced, cut off  $PQ'=PS$ . Complete the parallelogram PQRQ', of which P, Q, and Q' are three angular points. PR is the normal at P.

4. Trace the curve

$$y^2 = x^2 \left( \frac{a+x}{a-x} \right)$$

examining its shape at the origin and at infinity.

Show that the area included between the curve and its asymptote is  $\frac{1}{2}(\pi+4)a^2$ .

5. A uniform cylinder whose section is an ellipse is placed with its axis horizontal on a rough inclined plane, whose inclination  $\alpha$  is less than the angle of limiting friction.

Show that equilibrium is not possible unless

$$\alpha < \tan^{-1} \left( \frac{a^2 - b^2}{2ab} \right).$$

6. A point A moves uniformly along a fixed straight line, while a point B has always a constant velocity perpendicular to AB. Prove that B describes a conic relative to A.

7. A particle is projected from the lowest point of a rigid vertical circle of radius  $a$ , along the inside of the curve with a velocity  $\sqrt{\left( \frac{7ag}{2} \right)}$ . Find where it leaves the circle, and prove that after leaving the curve it will return to the point of projection.

8. A particle moves under the action of a central force

$$\mu(u^5 - \frac{1}{2}a^2u^7)$$

the velocity of projection being  $\left( \frac{25\mu}{8a^4} \right)^{\frac{1}{2}}$ , the initial distance  $a$ , and the angle of projection  $\sin^{-1} \left( \frac{4}{5} \right)$ .

Prove that the polar equation of the path is

$$3a^2 = (4r^2 - a^2)(\theta + c)^2$$

where  $c$  is a constant.

LOGIC AND MENTAL PHILOSOPHY II.

HONOURS II.

*Select two questions from each Section.*

SECTION A.

1. "Those who profess to employ the Historical Method often omit the deductive half of it." Briefly summarise the Historical Method, and give a detailed illustration.
2. Illustrate the defects of what Mill calls the Chemical and Geometrical Methods in social science.
3. Discuss Mill's treatment of the fallacies,  
 (a) that the inconceivable is false ;  
 (b) that a phenomenon can only have one cause.

SECTION B.

4. Explain the special significance of the disjunctive judgment in modern theories of logic.
5. "The explicit predicate is more necessary than the explicit subject." Explain this statement, as illustrating Bosanquet's general theory of the judgment.
6. Illustrate the following description of the meaning of the figures of the syllogism—  
 Third Figure—an observation and a guess.  
 Second Figure—a tentative justification.  
 First Figure—a completely reasoned judgment.

SECTION C.

7. Give a brief introspective description of (a) the perception, (b) the idea, (c) the abstract idea which you have of yourself.
8. Discuss the relation to each other of suggestion, dream phenomena, hypnosis.
9. What are the main *psychological* arguments for freedom of the will? Explain the statement that "psychology is not the sole judge of this question."
10. What are the reasons for or against attributing will to the Absolute?



11. "The sentiment of tragedy is part æsthetic and part social; the sentiment of comedy is part æsthetic and part intellectual." Discuss this statement, giving detailed illustrations.
12. Give a brief psychological analysis of (a) "conviction of sin," (b) religious reverence.
13. Discuss, from the psychological point of view, the assertion that "true ethical progress can only be brought about by separating morality from religion."

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## HISTORY II.

### HONOURS.

*You are recommended to answer SEVEN questions, and no more.*

1. What were the duties and powers of the Emperor as understood by Charles the Great?
2. "Modern Germany proclaims the era of A.D. 843 the beginning of her national existence."  
Explain.
3. "The nadir of order and civilisation."  
Discuss the description of the period which followed the dissolution of the Carolingian Empire.
4. "Less universal, less ecclesiastical, less truly Roman than the Carolingian Empire, the Empire of the Saxons was based essentially on the German kingship, yet was ever trying to outgrow its limitation, and to claim in its completeness the Carolingian heritage."  
Explain and illustrate this statement.
5. "The Teutonic Reform of the Papacy."  
Describe this movement in the early part of the 11th century.
6. "The Pontificate of Gregory VII is the turning point of the Middle Ages." Discuss.
7. "It is from the death of Louis le Fainéant, the last of the Carolingians, and the election of the first of the Capets, Hugh, that the beginning of the French State must be traced." Discuss.

8. Sketch the story of the Normans in Italy to the death of Robert Guiscard.
9. "It was under the Hohenstaufens that the actual power and the theoretic influence of the Empire most nearly coincided."

Discuss.

10. What were the chief causes of the final failure of the Emperor Frederick II?
  11. Compare the condition of Spain about 800 with its condition about 1250.
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## THIRD YEAR EXAMINATION.

## LATIN PROSE COMPOSITION.

## HONOURS.

Translate into Latin—

As a master of style, Livy is supreme among historians. He marks the highest point which the enlarged and enriched prose of the Augustan age reached just before it began to fall into decadence. It is no longer the famous *urbanus sermo* of the later Republic, the pure and somewhat austere language of a governing class. The influence of Virgil is already traceable in Livy, in actual phrases whose use had hitherto been confined to poetry, and also in a certain warmth of colouring unknown to earlier prose. To Augustan purists this relaxation of the language seemed provincial and unworthy of the severe traditions of the best Latin; and it was this probably, rather than any definite novelties in grammar or vocabulary, that made Asinius Pollio accuse Livy of "Patavinity." But in the hands of Livy the new style, by its increased volume and flexibility, is as admirably suited to a work of great length and scope as the older had been for the purposes of Cæsar and Sallust. It is drawn, so to speak, with a larger pattern; and the added richness of tone enables him to advance without flagging through the long and intricate narrative when a simpler diction must necessarily have grown monotonous, as one more florid would be cloying. In the earlier books we seem to find the manner still a little uncertain and tentative, and a little trammelled by the traditional manner of the older annalists; as he proceeds in his work he falls into his stride, and advances with a movement as certain as that of Gibbon, and claimed by Roman critics as comparable in ease and grace to that of Herodotus.

## LATIN UNSEEN TRANSLATION.

## HONOURS.

Translate—

(a) Perge, aude, nate! illacrima patris pestibus!  
 Miserere! gentes nostras flebunt miserias.  
 Heu! virginalem me ore ploratum edere,  
 Quem vidit nemo ulli ingemiscentem malo!  
 Sic feminata virtus afflicta occidit.  
 Accede, nate, assiste, miserandum adspice  
 Evisceratum corpus laceratum patris!  
 Videte, cuncti! tuque Caelestum sator,  
 Iace, obsecro, in me vim coruscam fulminis!  
 Nunc, nunc, dolorum anxiferi torquent vertices,  
 Nunc serpit ardor. O ante victrices manus!  
 O pectora, o terga, o lacertorum tori!  
 Vestrone pressu quondam Nemeaeus leo  
 Frendens efflavit graviter extremum halitum?  
 Haec dextra Lernam, tetra mactata excetra,  
 Pacavit; haec bicorpore afflixit manum;  
 Erymanthiam haec vastificam abiecit beluam;  
 Haec e Tartarea tenebrica abstractum plaga  
 Tricipitem eduxit, Hydra generatum, Canem;  
 Haec interemit tortu multiplicabili  
 Draconem, auriferam obtutu observantem arborem.  
 Multa alia victrix nostra lustravit manus,  
 Nec quisquam e nostris spolia cepit laudibus.

(b) Cum dedit ille locum, cophino faenoque relicto  
 Arcanam Iudaea tremens mendicat in aurem,  
 Interpret legum Solymarum et magna sacerdos  
 Arboris ac summi fida internuntia caeli.  
 Implet et illa manum, sed parcius; aere minuto  
 Qualiacumque voles, Iudaei somnia vendunt.  
 Spondet amatorem tenerum vel divitis orbi  
 Testamentum ingens calidae pulmone columbae  
 Tractato Armenius vel Commagenus haruspex;  
 Pectora pullorum rimabitur, exta catelli,  
 Interdum et pueri; faciet, quod deferat ipse.  
 Chaldaeis sed maior erit fiducia; quidquid  
 Dixerit astrologus, credent a fonte relatum  
 Hammonis, quoniam Delphis oracula cessant,

Et genus humanum damnat caligo futuri.  
Praecipuus tamen est horum, qui saepius exul,  
Cuius amicitia conducendaque tabella  
Magnus civis obit et formidatus Othoni.  
Inde fides artis, sonuit si dextera ferro  
Laevaue, si longo castrorum in carcere mansit.  
Nemo mathematicus genium indemnatus habebit,  
Sed qui paene perit, cui vix in Cyclada mitti  
Contigit et parva tandem caruisse Seripho.  
Consulit ictericae lento de funere matris,  
Ante tamen de te Tanaquil tua.

(c) Sed et mare scrutantur, ac soli omnium succinum, quod ipsi glesum vocant, inter vada atque in ipso litore legunt. Nec quae natura quaeve ratio gignat, ut barbaris, quaesitum compertumve. Diu quin etiam inter cetera eiectamenta maris iacebat, donec luxuria nostra dedit nomen. Ipsis in nullo usu: rude legitur, informe perfertur, pretiumque mirantes accipiunt. Succum tamen arborum esse intellegas, quia terrena quaedam atque etiam volucra animalia plerumque interlucent, quae implicata humore mox durescente materia cluduntur. Fecundiora igitur nemora lucosque, sicut Orientis secretis, ubi tura balsamaue sudant, ita Occidentis insulis terrisque inesse crediderim; quae vicini solis radiis expressa atque liquentia in proximum mare labuntur, ac vi tempestatum in adversa litora exundant. Si naturam succini admoto igni temptes, in modum taedae accenditur, alitque flammam pinguem et olentem; mox ut in picem resinamve lentescit.

(d) Sin oratoris nihil vis esse nisi composite, ornate, copiose loqui, quaero, id ipsum qui possit adsequi sine ea scientia, quam ei non conceditis? dicendi enim virtus, nisi ei, qui dicet, ea, de quibus dicet, percepta sunt, exstare non potest. quam ob rem, si ornate locutus est, sicut et fertur et mihi videtur, physicus ille Democritus, materies illa fuit physici, de qua dixit, ornatus vero ipse verborum oratoris putandus est; et, si Plato de rebus civilibus controversiis remotissimis divinitus est locutus, quod ego concedo; si item Aristoteles, si Theophrastus, si Carneades in rebus eis, de quibus disputaverunt, eloquentes et in dicendo suaves atque ornati fuerunt, sint eae res, de

quibus disputant, in aliis quibusdam studiis, oratio quidem ipsa propria est huius unius rationis, de qua loquimur et quaerimus. etenim videmus eisdem de rebus ieiune quosdam et exiliter, ut eum, quem acutissimum ferunt, Chrysippum, disputavisse neque ob eam rem philosophiae non satis fecisse, quod non habuerit hanc dicendi ex arte aliena facultatem. quid ergo interest aut qui discernes eorum, quos nominavi, in dicendo ubertatem et copiam ab eorum exilitate, qui hac dicendi varietate et elegantia non utuntur? unum erit profecto, quod ei, qui bene dicunt, adferunt proprium, compositam orationem et ornatam et artificio quodam et expolitione distinctam; haec autem oratio, si res non subest ob oratore percepta et cognita, aut nulla sit necesse est aut omnium inrisione ludatur.

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LATIN AUTHORS.

HONOURS.

Translate and comment upon extracts from Tacitus' Annals, I., II., V., VI.; Horace, Epistles; Martial, Select Epigrams.

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ROMAN LITERATURE.

HONOURS.

*Not more than six questions to be answered.*

1. Compare the style of Cicero and of Seneca, and discuss Mackail's statement that Sallust is in a sense the first of the imperial prose-writers.
2. Give an account of Ennius.
3. Compare Lucan and Virgil as epic poets.
4. "Horace thoroughly disliked the array of 'old masters' that were at once confronted with him, whenever he expressed a predilection."  
Comment on this statement.
5. Describe the influence upon Roman poetry of the Alexandrian school.
6. Discuss the sincerity of Juvenal as a satirist.

7. Compare the versification of Lucretius and of Virgil.
8. "With all his excellences, Ovid betrays the first marks of the decline of Roman poetry."  
Comment on this.

GREEK.

HONOURS.

The papers set in the Senior Class for Honours (see under Second Year), with the following:—

GREEK—SPECIAL SUBJECT.

DEMOSTHENES—SELECT PRIVATE ORATIONS.

HONOURS.

1. Translate into English extracts from Demosthenes, Pro Phormione and Contra Stephanum, I. and II.
2. Determine from internal evidence the date of the delivery of the speech for Phormion.
3. What is the literary problem of the two speeches against Stephanos? Argue the question.
4. Translate the following passages, and give notes—

(a) δεῖ δ' ὑμᾶς ἀκοῦσαι καὶ μαθεῖν ἐκ τίνος τρόπου προσώφειλε τὰ ἔνδεκα τάλανθ' ὁ Πασίων ἐπὶ τὴν τράπεζαν. οὐ γὰρ δι' ἀπορίαν ταῦτ' ὤφειλεν, ἀλλὰ διὰ φιλεργίαν. ἡ μὲν γὰρ ἔγγειος ἦν οὐσία Πασίωνι μάλιστα ταλάντων εἴκοσιν, ἀργύριον δὲ πρὸς ταύτῃ δεδανεισμένον [ἴδιον] πλέον ἢ πεντήκοντα τάλαντα. ἐν [οὖν τοῖς πεντήκοντα ταλάντοις] τούτοις ἀπὸ τῶν παρακαταθηκῶν τῶν τῆς τραπέζης ἔνδεκα τάλαντ' ἐνεργὰ ἦν.

(b) ἀρπάζοντος δὲ τούτου καὶ πολλὰ ἀπὸ κοινῶν ὄντων τῶν χρημάτων ἐναλίσκειν οἰομένου δεῖν, λογιζόμενοι πρὸς ἑαυτοὺς οἱ ἐπίτροποι, ὅτι, εἰ δεήσει κατὰ τὰς διαθήκας, ὅς' ἂν οὗτος ἐκ κοινῶν τῶν χρημάτων ἀναλώσῃ, τούτοις ἐξελόντας ἀντιμοιρεῖ τὰ λοιπὰ νέμειν, οὐδ' ὅτι οὖν ἔσται περιόν, νείμασθαι τὰ ὄνθ' ὑπὲρ τοῦ παιδὸς ἔγνωσαν.

(c) Οὐκ οἶδ' ὅ τι δεῖ πλείω λέγειν· οἶμαι γὰρ ὑμᾶς οὐδὲν ἀγνοεῖν τῶν εἰρημένων. ἐξέρα τὸ ὕδωρ.

(d) προσοφλὼν δὲ τὴν ἐπωβελίαν καὶ οὐδὲ λόγου τυχεῖν ἀξιωθείς, ἀλλ' ὑβρισθεὶς ὥς οὐκ οἶδ' εἴ τις πώποτ' ἄλλος ἀνθρώπων, ἀπήειν βαρέως ὡς ἄνδρες Ἀθηναῖοι καὶ χαλεπῶς φέρων.

## GREEK GENERAL PAPER.

## HONOURS.

*Not more than six questions to be attempted.*

1. Discuss the social estimate of agriculture, trade, and industry current in ancient Greece.
2. "Aristotle deserves to be remembered rather as the author of a suggestion for the reformation of slavery than as the defender of the institution." Explain this, and discuss the effects of slavery among the Greeks and Romans.
3. Explain the special delicacy of the political balance in Greek city-states as contrasted with the greater stability of modern political institutions.
4. "The principle which underlies the structure of the best Greek tragedies is the desire for intensity rather than variety of impression" (*Haigh*). Examine this statement.
5. "No poet ever exercised a more powerful influence over subsequent literature" (speaking of Euripides). Discuss.
6. "The Roman drama in its regular form was a mere exotic borrowed directly from the Greek." Justify this statement.
7. "As far as intelligence and discrimination are concerned, the Athenian audiences (in the theatre) were probably superior to any audience of the same size which has ever been brought together" (*Haigh*.) Criticise this.
8. "The life of Alexander the Great was spent in solving difficult problems, political and military; and none was harder than this, to create a kingship which should conciliate the prejudices of the east without offending the prejudices of the west" (*Bury*). Explain.
9. Discuss the charge of partiality sometimes urged against Herodotus.
10. Examine the position of women in Athens and Greece generally.
11. Account for the predominance of federalism in Greece in the third century B.C.
12. Exhibit the elements of truth in Plato's attitude towards literature.



13. Discuss the influence of geographical facts upon the peculiar development of Greek history.
14. "The athletes who go abroad are for the time public servants" (*Daily Telegraph*, February 17th, 1905).  
Discuss, with reference to ancient Greek civilisation.

## ENGLISH I.

## HONOURS.

1. Translate, with explanatory comments, passages from *Beowulf*.
2. A. "The grammar of *Beowulf* is full of anomalies." Discuss the evidence of the following lines—
- (a) Ne wäs hit lenge þā gen  
þät se ecg-hete āðum-swerian  
āfter wäl-niðe wācnan scolde.
- (b) Hine sorh-wylmas  
lemede tō lange, he his leōdum wearð,  
eallum āðelingum tō aldor-ceare.
- (c) He þā mid þære sorge, þe him sió sār belamp,  
gum-dreám ofgeaf, godes leóht geceás.
- B. "The text of *Beowulf* is often corrupt." Examine the condition of the following passages in the critical text of Heyne—
- (a) Segn eác genom,  
beácna beorhtost; bill ær-gescôð  
(ecg wäs iren) eald-hlāfordes  
þam þāra mādma mund-bora wäs  
longe hwīle, lig-egesan wāg  
hātne for horde, hioro-weallende,  
middel-nihtum, ôð þät he morðre swealt.
- (b) Hruron him teáras,  
blonden-feaxum : him wäs bega wén,  
ealdum infrôdum, ôðres swīdor,  
þät hī seoððan geseón mōston  
môdige on meðle.
- (c) þät wäs mid eldum Eánmundes lāf,  
suna Ohteres, þam ät sáce wearð  
wraçu wine-leásum Weohstānes bana  
méces ecgum.

3. (a) Give the story of the fall of Hygelac, according to Beowulf, and estimate its significance for the poem.
- (b) What is the relationship of Beowulf to the Saga of the Volsungs and to that of Grettir?

4. "The success of epic poetry depends upon the author's power of imagining and representing characters."

Appreciate "the success" of the old English epic in this regard.

5. Translate (at sight)—

Monige eac wise lareowas winnað mid hira ðeawum wið ða gastlican bebodu þe hi mid wordum lærað, ðonne hi on oðre wisan libbað on oðre hi lærað. Oft ðonne se hirde gæð on frecne wegas, sio hiord, þe unwærre bið, gehrist. Be swelcum hirdum cwæð se witga: "Ge fortrædon Godes sceapa gærs & ge gedrefdon hira wæter mid eowrum fotum, ðeah ge hit ær undrefed druncon." Swæ ða lareowas, hi drincað swiðe hlutor wæter, ðonne hi ðone godcundan wisdom liorniað, & eac ðonne hi hine lærað; ac hi hit gedrefað mid hira agnum unðeawum, ðonne ðæt folc bisenað on hira unðeawum, nalles on hira lare. Ðeah ðæt folc ðyrste ðære lare, hi hie ne magon drincan, ac hio bið gedrefed midðæmþe ða lareowas oðer doð oðer hi lærað. Be ðæm Dryhten cwæð eft ðurh ðone witgan: "Yfle preostas bioð folces hryre."

6. Rewrite in Old English—

Then the young king cried: "Is it a dragon flying there, or but the day that dawns from the East?" And his men made answer: "Here flies no dragon, hither comes no light of day, but our foes approach bringing fire against us, their arrows hurtle fast, even now the hall is aflame." So the battle raged and continued a whole five days, until the attack grew feeble and the besieged had no strength left to sally forth. Great was the slaughter and high the rejoicing of eagle and wolf over the banquet that the rage of the warrior had spread for them.

Then since so few were left alive, peace was made and oaths were sworn that no man on either side should ever remind another of that conflict.

## ENGLISH II.

## HONOURS.

1. Translate and explain passages from Maclean's *Old and Middle English Reader*.
2. Translate, adding brief literary and linguistic notes, passages from the *Old and Middle English Reader*.
3. Discuss the dialect of selected extracts from the *Old and Middle English Reader*, showing how it varies from the early West Saxon norm in the case of Old English and from the language of Chaucer in the case of Middle English—

4. Translate (at sight)—

Folo wæs âfâred : flôdegða becwôm  
 gâstas gêomre, geofon dêaþê hwêop.  
 Wæron beorhhliþu blôdê bestêmed,  
 holm heolfre spâw, hrêam wæs on ýþum,  
 wæter wæpna ful, wælmist âstâh.  
 Wæron Egypte eft oncyrde,  
 flugon forhtigende, fêr ongêton,  
 woldon hereblêaþe hâmas findan :  
 gylp wearþ gnornra ! Him ongên gehnâp  
 atol ýþa gewealc : ne þær ænig becwôm  
 herges tô hâme, ac hîe hindan belêac  
 wyrd mid wêge. þær ær wegass lagon,  
 mere môdgode, mægen wæs âdrenced.

5. Explain—

(a) Fæge feollan. feld dænnade. sêcgas hwate.

(b) Annd tuss iss Crist Amminadab  
 þurh gastli; witt gehatenn.

(c) Mi bodi henge wið þi bodi neiled o rode sperred  
 querfaste wiðinne fowr wahes.

(d) Sweem of ther speche made interupcyoun.

6. Trace the changes in English poetical form from Caedmon to Lydgate.

## FRENCH AND GERMAN.

## HONOURS.

The same papers as those set in the Second Year Examination.

SOLID GEOMETRY.

HONOURS.

1. Interpret A, B, C in the equation  $Ax + By + Cz = 1$ .  
Find the radii of the spheres which touch the coordinate planes and the plane  $x + y + z = a$ .

2. Find the equations of a straight line in a symmetrical form.  
Prove that the equations

$$\left. \begin{aligned} ax &= cy + bz \\ by &= az + cx \\ cz &= bx + ay \end{aligned} \right\}$$

will represent a straight line, provided  $a^2 + b^2 + c^2 + abc = 0$ ;  
and that the equations of the straight line can be written

$$\frac{x}{\sqrt{bc - a^2}} = \frac{y}{\sqrt{ca - b^2}} = \frac{z}{\sqrt{ab - c^2}}.$$

3. Find the equations of, and the length of the shortest distance between the two straight lines

$$\frac{x-a}{l} = \frac{y-b}{m} = \frac{z-c}{n}, \quad \frac{x-a'}{l'} = \frac{y-b'}{m'} = \frac{z-c'}{n'}.$$

Find the shortest distance between a diagonal of a cube and any edge which it does not meet.

4. Shew that the equations of two non-intersecting straight lines can be put into the form

$$y = mx, z = c; \quad y = -mx, z = -c.$$

Shew that the locus of the middle points of all straight lines parallel to a fixed plane, and terminated by two fixed non-intersecting straight lines, is a straight line.

5. Find the equation to the tangent plane at any point of the ellipsoid  $\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$ .

Prove that, if a tangent cone is drawn to the ellipsoid from any point in a plane parallel to  $Oxy$ , the plane of contact will meet  $Oz$  in a fixed point.

6. Shew (1) that the surface  $\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$  can be generated by

two systems of straight lines, (2) that no two straight lines of either system intersect each other, (3) that every straight line of either system intersects every straight line of the other system.

Find a surface of the second degree which has the straight lines

$$\left. \begin{array}{l} y=b \\ z=-c \end{array} \right\} \left. \begin{array}{l} z=c \\ x=-a \end{array} \right\} \left. \begin{array}{l} x=a \\ y=-b \end{array} \right\} \text{ for generators.}$$

7. Prove that the equation

$$y^2 - 4xy + 4x^2 - 6x + 3z = 0$$

represents a parabolic cylinder.

8. State what is meant by a developable surface.

Prove that the surface  $z=f(xy)$  will be developable provided

$$\frac{d^2z}{dx^2} \cdot \frac{d^2z}{dy^2} - \left( \frac{d^2z}{dxdy} \right)^2 = 0.$$

Is the surface  $(z-c)^2=xy$  developable?

9. Find the equation of the osculating plane, and the length of the radius of curvature at any point of a curve.

Shew that the radius of curvature at any point  $z=h$  on the curve  $x+y=b$ ,  $x^2+z^2=a^2$  is

$$\frac{(h^2+a^2)^{\frac{3}{2}}}{a^2}$$

10. Find the radius of curvature of a normal section of the spheroid

$$\frac{x^2+y^2}{a^2} + \frac{z^2}{c^2} = 1.$$

made by a plane inclined to the meridian at the angle  $\alpha$ .

## ANALYTICAL STATICS AND DYNAMICS.

### HONOURS.

1. Find the conditions of equilibrium of a rigid body which is free to move about a fixed point.

A cone has attached to the edge of its base a string equal in length to the diameter of its base, and is suspended by the extremity of this string from a point in a smooth vertical wall. If  $\alpha$  be the semi-vertical angle of the cone, and  $\theta$  the inclination of the string to the vertical, prove that in a position of equilibrium

$$\tan \alpha \tan \theta = \frac{1}{2}.$$

2. A uniform cylinder, whose section is an ellipse, is placed with its axis horizontal on a rough inclined plane whose inclination  $\alpha$  is less than the angle of limiting friction. Show that equilibrium is not possible unless

$$\alpha < \tan^{-1} \left( \frac{a^2 - b^2}{2ab} \right).$$

3. Find the expressions in polar coordinates for the radial and transversal velocities and accelerations of a point moving in a plane.

The point A moves uniformly along a fixed straight line, while the point B has always a constant velocity perpendicular to AB. Prove that the point B describes a conic section relative to A.

4. Prove that when a particle of mass  $m$  is acted upon by a central force  $mf$ ,

$$\frac{p^2}{r^3} \frac{dp}{dr} = f.$$

Discuss the case,  $f = \frac{\mu}{r^2}$ , pointing out the different orbits according as

$$V^2 \begin{matrix} > \\ = \\ < \end{matrix} \frac{2\mu}{R},$$

$V$  being the velocity of projection and  $R$  the radius to the point of projection.

5. A particle describes a circle of radius  $c$  about a centre of force at a point  $O$  on the circumference. When  $P$  is at the distance of a quadrant from  $O$  the force without altering its instantaneous magnitude begins to vary as the inverse square. Prove that the semi-axes of the new orbit are  $\frac{2}{3}\sqrt{2}c$  and  $\frac{1}{3}\sqrt{3}c$ .

6. Discuss the case of the motion of a particle inside a rigid vertical circle.

A particle is projected from the lowest point of such a circle of radius  $a$ , with velocity  $\sqrt{\left(\frac{7ag}{2}\right)}$ . Find where it leaves the circle, and prove that after leaving the curve it will return to the point of projection.

7. Explain the method to be followed in the solution of problems of oscillation about a position of stable equilibrium.

Two equal particles of mass  $m \sin \alpha$  are attached at intervals  $2a \sin \alpha$  apart to a thread, to the ends of which particles of mass  $m$  are attached. The thread is hung over two pegs distant  $2a$  apart in a horizontal line. Find the position of equilibrium: and prove that the period of the small oscillations about the position of equilibrium is the same as that for a simple pendulum of length  $a \tan \alpha$ .

8. Obtain the equations of motion of a rigid body in two dimensions, establishing the principles of the independence of the motions of translation and rotation.

What is meant by the terms—

(i.) Conservation of Linear Momentum?

(ii.) Conservation of Angular Momentum?

9. A rod AB is attached by a weightless inextensible string fastened to its middle point C to a fixed point O. The motion takes place in the vertical plane ABO, and the rod starts from rest with OC and AB inclined to the vertical at angles  $\alpha$  and  $\beta$  respectively.

Discuss the motion, and show that C moves as if OC were a simple pendulum.

10. Two equal homogeneous rods have their ends AA', BB', connected by two equal inextensible weightless strings of length  $l$ . The upper rod AB is free to turn about a fixed horizontal axis perpendicular to the plane of the rods through its middle point, and the whole system moves in this vertical plane. Prove that if the rods are inclined at an angle  $\phi$ , and the line joining their middle points at an angle  $\theta$ , to the vertical at time  $t$ ,

$$2k^2\ddot{\phi} + l^2\ddot{\theta} = 2gl \cos \theta + \text{constant},$$

$$2k^2\ddot{\phi} + l^2\ddot{\theta} = -gl \sin \theta$$

and discuss the motion.

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## SPHERICAL TRIGONOMETRY AND ASTRONOMY.

### HONOURS.

1. Find a formula connecting the two sides of a spherical triangle with the opposite angles.

Two places are situated in latitude  $45^\circ$  S., and their longitudes differ by  $90^\circ$ . Prove that the saving in distance effected by sailing from one to the other by the great circle route instead of due E. or W. is  $\frac{3\sqrt{2}-4}{24} \times$  circumference of the earth.

2. Investigate three formulæ connecting the sides and angles of a right-angled triangle.

Prove that in a right-angled triangle

$$\sin(A+B) = \frac{\cos^2 \frac{b}{2} - \sin^2 \frac{a}{2}}{\cos^2 \frac{c}{2}}.$$

3. Prove that the great circle bisecting two sides CA, CB of a spherical triangle intersects the base in two points X, Y equidistant from its middle point.

If O be the pole of the great circle through the middle points, and OA meets it in P, shew that XAP is the complement of half the spherical excess of the triangle.

Hence, or otherwise, prove that, with the usual notation—

$$\sin \frac{E}{2} = \frac{n}{2 \cos \frac{a}{2} \cos \frac{b}{2} \cos \frac{c}{2}}.$$

Find the length of each side of an equilateral triangle whose area is  $\frac{1}{17}$  of that of the sphere.

4. Find formulæ for the radii of the small circles circumscribed about and escribed to a given spherical triangle.

If R and  $r'$  be the value of these radii in the case of an equilateral triangle, prove that  $\tan R \tan r' = 2 \sin^2 \frac{a}{2}$ .

5. What are meant by the right ascension, the azimuth, the hour angle of a heavenly body?

At what time on 21st March, in latitude  $30^\circ$  S. will the sun's azimuth be  $\tan^{-1} 2$  East of North?

6. Find the relation between the latitude and longitude of all places on the earth's surface that have the Sun on the prime vertical at the same instant.



7. Describe the different ways of measuring time, and shew that the equation of time vanishes four times a year.  
Shew how to find the time by a single altitude of a known star.
8. Explain how you would find the latitude and the time from two altitudes ( $a, a'$ ) of the Sun and the elapsed time. What particular advantages does this method possess?  
If  $\delta z, \delta z'$  are small errors in the observed altitudes, shew that the corresponding error in the latitude is  

$$\frac{\delta z \sin A' - \delta z' \sin A}{\sin(A' - A)},$$
 $A, A'$  being the azimuths of the Sun.
9. Distinguish between geographic and geocentric latitude, and shew that the difference between them is approximately  $\frac{1}{2}e^2 \sin 2l$ , where  $l$  is the geographic latitude and  $e$  the eccentricity of a meridian section of the earth.
10. What is parallax, and in what cases must correction for parallax be applied?  
Find the components of parallax in declination and in hour angle.

INTEGRAL CALCULUS AND DIFFERENTIAL EQUATIONS.

HONOURS.

1. Integrate  $\frac{1}{1+e \cos \theta}$  and  $\frac{1}{(1+e \cos \theta)^n}$  and find the value of  $\int_0^\infty e^{-x^2} dx$ , and  $\int \tan^n x dx$ ,  $n$  being a positive integer.
2. If  $u = \int_a^b \phi(x, a) dx$ , shew that  $\frac{\partial u}{\partial a} = \int_a^b \frac{\partial \phi(x, a)}{\partial a} dx$ , under certain conditions, and deduce the value of  

$$\int_{-\infty}^{+\infty} \frac{x dx}{(a+2bx+cx^2)^2}$$
from that of  $\int_{-\infty}^{+\infty} \frac{dx}{a+2bx+cx^2}$

3. Prove that  $\Gamma(n+1) = n\Gamma(n)$

$$\text{and } \Gamma(m, n) = \frac{\Gamma(m) \cdot \Gamma(n)}{\Gamma(m+n)}$$

and shew that

$$\int_0^{\frac{\pi}{2}} \sin^m \theta \cos^n \theta d\theta = \frac{1}{2} \frac{\Gamma\left(\frac{m+1}{2}\right) \Gamma\left(\frac{n+1}{2}\right)}{\Gamma\left(\frac{m+n}{2} + 1\right)}$$

4. Shew how to transform the double integral

$$\iint f(xy) dx dy$$

referred to rectangular coordinates, to another referred to polar coordinates, and shew that the value of

$$\int_{b-k}^{b+k} \int_{a-\sqrt{k^2-(y-b)^2}}^{a+\sqrt{k^2-(y-b)^2}} xy dx dy \quad \text{is } \pi abk^2.$$

5. Investigate the condition that must hold between P, Q and R so that the equation  $Pdx + Qdy + Rdz = 0$  may have a solution  $F(x, y, z) = C$ , and when this condition is satisfied, shew that the solution may be obtained.

6. What is the geometrical connection between the solution of  $Pdx + Qdy + Rdz = 0$  and the solution of

$$\frac{dx}{P} = \frac{dy}{Q} = \frac{dz}{R}$$

Find the orthogonal trajectory of the straight lines

$$x - a = m(y - b) = n(z - c),$$

$m, n$  being arbitrary constants.

7. Shew how an equation may be solved by changing the dependent variable.

Solve the equation

$$\frac{d^2y}{dx^2} + \frac{2x}{1+x^2} \frac{dy}{dx} + \frac{y}{(1+x^2)^2} = 0.$$

8. Being given that  $\frac{d^2y}{dx^2} = x \frac{dy}{dx} + y$  and that when  $x = a, y = b, \frac{dy}{dx} = m$ ,

find an approximate value for  $y$  in the form of a series. Point out under what circumstances this series is convergent.

Describe the method employed to solve the equation  $Pp + Qq = R$  where  $P$ ,  $Q$  and  $R$  are functions of  $x$ ,  $y$  and  $z$ , and prove the rule.

9. Solve the equation

$$(x^2 - y^2 - z^2) \frac{\partial z}{\partial x} + 2xy \frac{\partial z}{\partial y} = 2zx,$$

and shew that the solution is a surface cutting at right angles, the family of spheres whose centres lie on the axis of  $x$ , and which pass through the origin.

10. Solve the equation  $Rr + Ss + Tt = V$ , taking as particular case  $q(r - s) + p(s - t) = 0$ .

## LOGIC AND MENTAL PHILOSOPHY II.

### HONOURS.

*Not more than SIX questions to be attempted.*

1. Discuss the conception of humanity as found in classical times, and in the writings of Spencer and Green.
2. Compare Green's account of the moral ideal with Spencer's theory of Absolute Ethics. Discuss the practical value of each.
3. Describe and illustrate one of the following—
  - (a) Green's view of the function of conscience.
  - (b) Spencer's "idea of proportion" as compared with Aristotle's theory of the mean.
4. "To desire a thing is to find it pleasant."  
Examine the value of this statement, as a psychological basis for Hedonism.
5. How has Utilitarianism been affected by the Theory of Evolution?
6. "Morality stands or falls with the absolute obligatoriness of the consciousness of duty." "True ethical progress can only be brought about by separating morality from religion."  
Discuss these statements.
7. What are the reasons for or against attributing Will to the Absolute?

8. What do you consider to be the vital idea of religion? On what grounds, psychological and ethical, would you justify your position?
9. Point out the ambiguity and discuss the psychological justification of the following educational maxims—"Follow nature"; "Begin by teaching the elements"; "Think in shape."
10. "Education must be motor and active as well as sensory and passive." Illustrate by reference to the teaching of some one school subject.
11. Discuss the psychological basis of the educational doctrine of Apperception.

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## HISTORY II.

### HONOURS.

*You are recommended to answer SEVEN questions, and no more.*

1. "A Reform is a change made peacefully from above. A Revolution is a change made violently from below."  
How do you explain the fact that the movement which began in 1789 took the character of a Revolution rather than that of a Reform?
2. Discuss Napoleon's relation to "the ideas of the Revolution." To what extent is his rule to be regarded as the defeat of these ideas? To what extent is it to be regarded as their victory? Indicate some reasons (apart from his military strength) which help to account for the acquiescence of the French people in his rule.
3. "With the establishment of the Rhenish Confederacy and the Conquest of Naples (1806), Napoleon's Empire reached but did not overpass the limits within which the sovereignty of France might probably have been long maintained."  
Discuss this statement, showing (a) the reasons which make it possible that the Empire of 1806 might have endured, and (b) the dangers involved in Napoleon's attempts to extend further his power after that year.
4. Explain the interest of the political career of Stein.

5. "It is not now easy to suppress the doubt whether the permanent interests of mankind would not have been best served by Napoleon's success in 1812. His Empire had already attained dimensions that rendered its ultimate disruption certain; less depended upon the postponement or the acceleration of its downfall than on the order of things ready to take its place."

Comment briefly on this passage, and explain the character of "the order of things" established on Napoleon's downfall.

6. What were the chief reasons (apart from success in battle) which determined that Prussia rather than Austria should become the dominant German Power?
7. Explain the importance of "the doctrine of intervention" and "the doctrine of non-intervention" in European politics after 1815.
8. How do you explain the frequency of "Revolutions" in France between 1815 and 1870?
9. Describe the political condition of the Balkan Peninsula after the Treaty of Berlin. What have been the chief causes of the troubles that have taken place since that time?
10. Compare the condition of Russia at the present time with the condition of France in 1789.
11. Illustrate the permanence of the sentiment of nationality in Poland. What are the main reasons of the failure of the Poles to establish themselves as a united and independent nation?



## \*FACULTY OF LAW.

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### INTERMEDIATE EXAMINATION FOR THE DEGREE OF LL.B.

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#### ROMAN LAW.

*Candidates are not to attempt more than EIGHT questions, but these should include Nos.  
I. and XI.*

I. Translate, and comment BRIEFLY on, each of the following passages from your text:—

- (1) *Est autem capitis deminutio prioris status commutatio, eaque tribus modis accidit (I, 16, Pr.).*
- (2) *Et hoc est quod dicitur, per extraneam personam nihil adquiri posse (II, 9, 5).*
- (3) *Sed quarta quidem retenta quasi partis et pro parte stipulationes interponebantur tamquam inter partiarium legatarium et heredem: si vero totam hereditatem restituerit, emptas et venditas hereditatis stipulationes interponebantur (II, 23, 6).*
- (4) *Alteri stipulari, ut supra dictum est, nemo potest: inventae sunt enim huiusmodi obligationes ad hoc, ut unusquisque sibi adquirat quod sua interest; ceterum si alii detur, nihil interest stipulatoris (III, 19, 19).*
- (5) *Furti actio sive dupli sive quadrupli tantum ad poenas persecutionem pertinet: nam ipsius rei persecutionem extrinsecus habet dominus, quam aut vindicando aut condicendo potest auferre (IV, 1, 19).*

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\*The time allowed for each paper is three hours, except where otherwise stated.

II. "The Jus Naturale, or Law of Nature, is simply the Jus Gentium, or Law of Nations, seen in the light of a peculiar theory." Explain this statement.

Or,

"The Praeter developed the Substantive Law of Rome by means of his control over Procedure." Explain and illustrate this statement fully.

III. Describe (1) the different forms of wedlock known to Roman Law; and (2) the requisites of a valid civil marriage in the time of Justinian.

IV. Give a brief account of the tenure known to Roman Law as "Emphyteusis." In what respects did the legal position of the Emphyteuta differ from that of (1) a *Usufructuarius*, and (2) a *Conductor Fundi*?

V. What was the "*Querela inofficiosi testamenti*?" By whom and in what cases could it be successfully resorted to, under the law as finally settled by Justinian?

VI. At what moment was a contract of sale completed in Roman Law? What was the nature of the performance to which the vendor was then bound? At what moment did (1) the title to, and (2) the risk in, the thing sold pass to the buyer?

VII. Summarise the various heads of "invalidity" as set forth in the title "*De inutilibus stipulationibus*." (Inst. III, 19.)

VIII. To what extent and by what methods did obligations become assignable under the Roman Law?

IX. Discuss, in relation to the *Lex Aquilia*, the following cases, stating the principles involved and the remedies available:—

(1) A, the slave of B, is sick. C, the slave of D, secretly substitutes poison in place of the medicine left at A's bedside. A takes the poison and dies from its effects.

(2) A, the slave of B, is a valuable painter. C so injures A's hand that he is unable to paint again.

(3) A institutes B, the slave of C, his heir. A dies, and shortly after his death D kills B.

X. State the characteristics of the delict "*Injuria*," and the remedies available.

XI. Write a VERY SHORT explanatory note on each of the following :—

- (1) *Jus Postliminii*; (2) *Tutela fiduciaria*; (3) *Longissimi temporis praescriptio*; (4) *Alluvio*; (5) *Bonorum possessio contra tabulas*; (6) *Beneficium inventarii*; (7) *Naturalis obligatio*; (8) *Stipulatio aquiliana*; (9) *Exceptio doli mali*; (10) *culpa levis*.

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### CONSTITUTIONAL LAW.

*Candidates are not to attempt more than EIGHT questions, but these should include Nos. IV., VIII., and XII.*

#### SECTION I.

- I. (1) Describe briefly (*a*) the sources of, and (*b*) the authority for, the Common Law. (2) How far, and by virtue of what authority, are the rules and institutions of the Common Law applicable in New South Wales?
- II. How would you classify "the Dominions and Dependencies of the Crown?"
- III. Explain and illustrate, fully, the practical remedies and safeguards by which the English law secures to its subjects a right of personal liberty.
- IV. Write a short note on each of the following points discussed in your text book—(1) The nature of and difficulties incidental to the doctrine of Parliamentary sovereignty; (2) the meaning, in English law, of the term "Liberty of the Press"; (3) the rights of the Crown or its servants in dealing with an unlawful assembly; and (4) the different schemes devised for the purpose of giving a more effectual representation to minorities.

#### SECTION II.

- V. "The Commonwealth exhibits four main characteristics—(1) A federal form of government; (2) a parliamentary executive; (3) an effective method for amending the constitution; and (4) the maintenance of the relation which exists between the United Kingdom and a self-governing colony." Expand and explain each part of this statement.



- VI. Discuss, briefly, and in the light of the United States decisions, the nature and extent of the "commercial power" of the Commonwealth. How would you reconcile this power with the "police power" of the States?
- VII. What provision is made by (1) the Constitution of the Commonwealth with respect to (a) the establishment and functions of an inter-State Commission, and (b) the selection of a site for the Federal Capital; and (2) the Judiciary Act, 1903, with respect to (a) the constitution and organisation of the High Court, and (b) the Federal jurisdiction of the State Courts and the conditions under which it may be exercised.
- VIII. Write a brief note on each of the following—(1) The Federal franchise; (2) the conditions of naturalization under the Naturalization Act, 1903; (3) the liability to military service of the inhabitants of the Commonwealth under the Defence Act, 1903; and (4) the main features of the "Naval Agreement Act 1903."

SECTION III.

- IX. Discuss (1) the constitutional position of the Governor of the State with respect to the grant or refusal of a dissolution of the Legislative Assembly; and (2) the respective functions of the two Houses of the State Legislature with respect to money bills.
- X. What provision is made by (1) the Constitution Act, 1902, with respect to the acceptance or holding of an office of profit under the Crown as a disqualification of being elected to, or sitting or voting in, the Legislative Assembly; (2) the Interpretation Act, 1897, with respect to the commencement of Acts reserved; and (3) the Electorates Redistribution Act, 1904, with respect to the electoral system of the State.
- XI. Explain in relation to the subject of Parliamentary procedure in this State: (1) the modes of communication between the two Houses; (2) the powers of a Parliamentary Committee with respect to the taking of evidence; (3) the nature and application of the "Previous Question;" and (4) the respective functions of the Committee of Supply and the Committee of Ways and Means.

- XII. Give a brief account of (1) the general character of the jurisdiction exercised by the Supreme Court in Bankruptcy; (2) the extent to which "judicial immunity" is recognised by our law; (3) the main objects of the Industrial Arbitration Act, 1901; and (4) the constitution and jurisdiction of the Court of Marine Inquiry.

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### JURISPRUDENCE AND LEGAL HISTORY.

TWO HOURS AND A HALF.

*Candidates are not to attempt more than SIX questions.*

- I. Illustrate from Roman and English law the meaning and value of Legal Fictions.
- II. Indicate and account for the omissions and imperfections observable in ancient codes as compared with a modern civilised system of law.
- III. "The notion of a territorial law is European and modern." Explain and illustrate this statement.
- IV. Describe briefly the stages by which the system of self-redress was gradually superseded by the modern system of State justice.
- V. Discuss briefly the meaning and relative value of (1) the analytical, (2) the historical, and (3) the comparative methods of pursuing the study of Jurisprudence.
- VI. "A sovereign government is a government which ought not to receive commands from any external or foreign government." *Von Martens*. Criticise this, and give Austin's own definition of an Independent Political Society.
- VII. (1) In what manner did a uniform system of common law supersede the diversity of legal customs in England?  
(2) To what extent did the civil and canon law succeed in obtaining recognition in England?
- VIII. Examine briefly the nature of the rights arising out of the following relations or circumstances, assigning to each its place in a system of analytical jurisprudence:—
  - (a) The relation of trustee and *cestui que trust*.
  - (b) The infringement of a trade mark.

- (c) The forcible detention of a married woman from her husband.
- (d) The publication of a seditious libel.
- (e) A conspiracy to prevent a workman from obtaining employment.

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**THE ELEMENTS OF POLITICAL SCIENCE.**

**TWO HOURS.**

*Candidates must not attempt more than SIX questions.*

- I. "Really the task of determining what kinds of conduct are desirable or not, has been worked out for us by the past experience of mankind." Explain and expand this statement.
- II. How far would you consider the "collectivist ideal" either (1) practicable, or (2) desirable?
- III. What general account would you give of the basis of civil liability for wrongs other than breach of contract?
- IV. Explain, and illustrate, the distinction between the "constituent" and "ministrant" functions of government. What general considerations would you apply to projects involving any marked extension of the latter class of functions?
- V. "There can be no doubt that the post-office is a striking instance of the way in which a service, which is essentially a trading service, can be performed by a department of the State. But . . . it may be worth while to point out two or three special conditions and limitations which make the post-office service peculiar." What are the conditions and limitations here referred to?
- VI. Consider, briefly, the arguments for and against (1) the system set up by the Early Closing Act, 1899 (and Amending Act, 1900); and (2) the State grading of butter.
- VII. State, and examine, the principal theories which have been put forward on the subject of the objects of punishment.
- VIII. Discuss shortly—(1) The possibility and methods of securing a greater equality in the infliction of punishment for crime; and (2) the proper method of dealing with habitual criminals.

- IX. Write a short note upon each of the following:—(1) The true meaning of the term “democracy”; (2) the “betterment principle”; (3) “freedom of contract”; and (4) the different forms of industrial co-operation.

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INTERNATIONAL LAW.—(PUBLIC AND PRIVATE)

*Candidates are not to attempt more than EIGHT questions, which should be equally distributed between the two sections, and should include Nos. III., VI. and XII.*

SECTION I.

- I. “But there is a third kind of law, which can indeed be described as law only by courtesy, since the rights with which it is concerned cannot properly be described as legal.” Explain and criticise this statement of the nature of Public International Law.
- II. Intervention “is in its very nature an infringement of the independence of the State subjected to it, and therefore a violation of an acknowledged principle of International Law.” Examine the legality of intervention, citing modern instances in illustration.
- III. Discuss briefly, in relation to the present Russo-Japanese War, the questions raised by—(1) The commencement of hostilities without a previous declaration of war; (2) the inclusion of coal and provisions in the list of contraband; (3) the destruction of neutral vessels by belligerent cruisers; (4) the internment of belligerent ships of war in neutral ports.
- IV. “War is a relation of States alone, and an individual is a stranger to it both in person and in property, except when he is actually fighting or contributing to the furtherance of hostilities.” Explain this statement, showing how far it accords with International usage.
- V. State the duties of a neutral State with respect to—(1) The raising of a loan or subscription, within its territory, in aid of one of the belligerents; and (2) the construction or outfit of vessels of war, within its territory, for the use of either belligerent.

VI. Write a BRIEF explanatory note on each of the following—

- (1) Exterritoriality.
- (2) Sphere of Influence.
- (3) Hinterland.
- (4) Pacific Blockade.
- (5) Continuous Voyages.

SECTION II.

VII. “Any right which has been duly acquired under the law of any civilised country will, in general, be recognised and enforced by an English Court.” State the various exceptions to this rule, and the authority upon which they rest.

VIII. By what rules will a British Court be guided in determining *the intrinsic validity and effect* of a contract made in a foreign country. Cite authority for your answer.

IX. Give a brief summary of the rules of Private International Law as administered by English Courts, with respect to (1) the validity of a will made in a foreign country; (2) the validity of a marriage contracted abroad; and (3) the administration and distribution of the personal estate (found within the jurisdiction) of an intestate dying abroad and having a foreign domicile.

X. By what law would you determine the validity, from the point of view of an English Court, of each of the following transactions, the transaction having in each case occurred outside the jurisdiction :—

- (1) A transfer of a debt; (2) a presentment for acceptance, and a consequent protest upon dishonour, of a Bill of Exchange; (3) an average adjustment; and (4) a transfer of a ship. Cite authority for your conclusion in each case.

XI. State and illustrate the rules under which a foreign judgment (not being an Australian judgment) may be enforced in the Courts of this State.

XII. Consider the following cases, stating the principle applicable :—

- (1) A, a British subject, commits what would in English law be an assault, on B, an Italian subject in a foreign

country, where the act in question is criminally punishable but not actionable. B subsequently sues A for assault in an English Court.

- (2) A, who is domiciled in Victoria, marries at Sydney B, a Frenchwoman, domiciled in New Caledonia. Immediately after the marriage, and in pursuance of a previous agreement, A and B proceed to Capetown, where B opens and conducts an hotel in her own name. B was possessed of considerable personal property at the time of the marriage, and also makes large profits in her business as an hotelkeeper. There was no marriage settlement. By what law will A's rights in his wife's property be governed?
- (3) A British vessel comes into collision with a German vessel, off the Australian coast, about 10 miles from the shore. The collision was caused by the negligence of the German vessel. Proceedings are taken in the local jurisdiction. By what law will the liability of the German ship be governed?

## FINAL EXAMINATION FOR THE DEGREE OF LL.B.

## THE LAW OF CONTRACT AND MERCANTILE LAW.

*Candidates are not to attempt more than EIGHT questions, but these should include Nos. II., IX., and XI.*

- I. "The words *executed* and *executory* are used in three different senses in relation to contract, according to the substantive to which the adjective is joined." (Anson, p. 20.)  
Explain and illustrate the distinction between these terms, as applied to (1) Contract, (2) Consideration, and (3) The Contract of Sale.
- II. Consider the following cases in relation to the subject of the formation of contract, citing authority for your conclusion:—
- (1) A offers to sell B a horse for £50, but dies before B accepts. Is the offer still open for B's acceptance?
  - (2) A advertises for tenders for the supply of such iron articles as he may require during a period of 12 months. B offers to supply the articles on certain terms, and his tender is accepted. A fails to order any articles from B, but procures similar articles elsewhere. Advise B as to his legal position.
  - (3) A makes an offer to B, through the post. B replies, by return, accepting the offer. Is there a binding contract (a) where the reply is lost by a postman to whom B entrusted it; and (b) where B posts his reply, but A telegraphs a withdrawal of his offer before the reply reaches him.
  - (4) A, by advertisement, offers a reward to anybody who shall produce information as to the decease of B. C, not knowing of the advertisement, and incidentally to some other transaction, produces the required evidence. He subsequently claims the reward from A.
- III. (1) In what cases (if any) may an action for damages for breach of contract be maintained against a lunatic?
- (2) In what ways is the capacity of a corporation to contract limited?

- IV. A takes 100 shares in a company on the faith of certain statements contained in the prospectus, which the directors believe to be true, but which are in fact untrue. He also buys 100 shares in the open market. What remedies (if any) has A either against the directors or the company, and subject to what conditions in respect of either transaction?
- V. "The effect of illegality upon the validity of a contract in which it exists must needs vary according to circumstances." (Anson, p. 222.) Explain and illustrate this statement.
- A agrees to print for B two pamphlets for a sum of £20. One of the pamphlets is of a defamatory nature. After the printing has been completed, B refuses to pay for either. Advise A as to his position.
- VI. What are the rights of a holder of a negotiable instrument? In what cases may a holder be called upon to prove that he is a holder for value in order to recover?
- Discuss the rights and liabilities of the parties in the following case:—
- A wants to raise money, and B is willing to lend him the use of his credit. A draws a bill on B payable to himself or order. B accepts the bill and A endorses it for value to C, who subsequently endorses it, without receiving value to D.
- VII. (1) Under what conditions may a party to a contract sue on a "quantum meruit"?
- (2) In what ways may a contract be discharged by operation of law?
- VIII. A, acting on behalf of B, duly agrees to purchase certain goods from C, the goods to be paid for within a month of delivery. The goods are duly delivered by C, but A fails to pay for the same. Discuss the rights and liabilities of the parties (1) where A did not disclose the fact that he was acting as agent; and (2) where he disclosed the fact, but did not disclose the name of his principal.
- IX. (1) Examine the points of resemblance and difference between a Bill of Exchange and a Bill of Lading.
- (2) State in relation to Bills of Exchange (a) the nature of a qualified acceptance; (b) the rights of a transferee, by delivery, of a Bill of Exchange payable to order; and (c) the rule in *ex parte Waring* (19 Ves. 345).



- X. What are the liabilities of a common carrier with respect to goods entrusted to him for carriage? To what extent has this liability been modified by statute, in the case of (1) carriers by land (Common Carriers' Act, 1902); and (2) carriers by sea (Merchant Shipping Act, 1894)?
- XI. Discuss the following cases, stating the principles involved—
- (1) A draws a cheque in favour of B on the C Bank for £50, but carelessly leaves a blank space before the words and figures indicating the amount. B fills it up for £150 and obtains payment.
  - (2) A draws a cheque for £50 in favour of B or order on the C Bank. It is stolen without fault of A, and B's endorsement is forged by the thief, who thereupon negotiates it for value to E. E passes it through the F Bank, and in this way obtains payment from the C Bank. Advise A as to his position in respect of each of the parties to this transaction.
  - (3) In January, 1904, the Japanese Government purchases a warship in England, and places the same in charge of A for navigation to Japan. A engages B to act as engineer for the voyage to Yokohama for a fixed sum. On arrival at Aden B learns that war has been declared by Japan against Russia. He thereupon quits the ship, and subsequently sues A for the entire sum agreed to be paid him.
  - (4) A consigns goods to B, who endorses the Bill of Lading to C. Discuss C's position in the event of the goods proving defective, stating the authority for your conclusion.

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## THE LAW OF TORTS AND CRIMES.

### SECTION I.—TORTS.

- I. Draw up a scheme for the classification of torts, stating the principal torts which fall within each class.
- II. Discuss the following cases, stating the principles involved:—
  - (i.) A, a married woman, lives separately from her husband, B, under the provisions of a deed of separation. A brings an action against B to recover damages in respect of defamatory words spoken by B concerning her.

(ii.) A employs B, an architect, to supervise the erection of a building which C has contracted to build for A in accordance with certain plans and specifications prepared by B. The contract contains a provision that A is only to pay for the work upon B's certificate that it has been executed in accordance with the specifications. After the whole of the work has been paid for upon certificates given by B, A discovers that B has negligently passed work which is not in accordance with the specifications, and thereupon sues B for such negligence.

(iii.) A receives an offer of marriage from B. C, who has a spite against B, induces A to decline the offer.

(iv.) A, B, and C, in pursuance of a preconcerted arrangement between them, falsely represent to X, their father, that D, a child of X by a former marriage, is possessed of independent means, and thereby induce X to revoke a devise in D's favour.

(v.) A loses a diamond scarf pin. B finds it, and in ignorance of A's ownership gives it to C as a present. C sells it to D. A subsequently sues C for conversion of the scarf pin.

III. Write a short explanatory note on each of the following:—

(1) Conversion by estoppel; (2) Ratification of tortious acts; (3) *Jus tertii* in actions for wrongs to property; (4) Recaption of goods; (5) The liability of innkeepers.

IV. State the propositions of law relating to the action of deceit laid down in the following cases:—(1) Derry v. Peek; (2) Peek v. Gurney; (3) Edgington v. Fitzmaurice; (4) Barwick v. English Joint Stock Bank.

Discuss the following cases:—

(i.) A, the agent of B, acting within the general scope of his employment, makes a representation to C which is in fact false, but which A believes to be true. B is not aware that A has made the representation, but knows the contrary of the representation to be true.

(ii.) A, the agent of B, is authorised by B to make to C a specific statement which B believes to be true, and which at the time of giving the authority is in fact true. Before A has executed his authority the facts are materially changed, to the knowledge of A, but unknown to B. A conceals this from his principal, and makes the statement as originally authorised.

V. Under what circumstances is the contributory negligence of the plaintiff in an action a good defence to the action?

Two omnibuses come into collision owing to the negligence of both drivers. What are the rights and remedies of a passenger in either of them who is injured by the collision?

SECTION II.—CRIMES.

I. Examine the elements necessary to constitute an indictable attempt. Discuss the following cases:—

(i.) A, intending to obtain money by fraudulently personating B, has a number of visiting cards printed with B's name thereon.

(ii.) A, who is unable to read or write, requests B to write at his dictation a letter addressed to C, and to sign A's name thereto. The letter, as dictated, is a threatening letter demanding money from C. B does not take down the words as dictated, but without informing A, writes a mere request by A to C for a loan. A posts this letter to C.

II. Explain the difference between the Civil and Criminal Law as regards each of the following:—(1) Publication of libel; (2) liability for negligent acts or omissions; (3) liability for wrongs committed abroad; (4) consent as a defence; (5) liability of master for acts of servant.

III. Discuss the following cases, stating the principles involved:—

(i.) A, B and C arrange to commit a burglary together, and to arm themselves with revolvers so as to resist any attempted arrest. Whilst engaged in the commission of the crime they are disturbed, and escape in different directions. A is pursued by a constable D for some distance when he turns round and shoots his pursuer. B and C are afterwards arrested and tried for the murder of D.

(ii.) A sends B an account for goods supplied amounting to £1. B calls at A's shop and hands in the account, at the same time producing a sovereign, which he holds in his hand, thereby inducing A to receipt the account. Having obtained the receipted account, B puts the sovereign in his pocket and goes away without paying.

(iii.) A, who is leaving on a sea trip, puts his clerk B in charge of his office with instructions to pay himself his

weekly wages out of moneys left in the office safe. During A's absence a promissory note for £50 drawn by A, but which had escaped his memory, falls due and is presented for payment. At the date of presentment there is only £30 remaining in the office safe. In order to save his employer's credit B draws a cheque for £20 on A's banking account, and signs A's name thereto. The cheque is paid by the bank, and with the proceeds and the £30 in the safe B pays the promissory note. The following week B draws a further cheque in A's name for the purpose of paying himself wages due.

- IV. Give an account of the provisions of the Crimes Act, 1900, relating to (1) false swearing other than perjury, (2) abduction, (3) sequestration of felon's property.
- V. Discuss the doctrine of possession in the Criminal Law, with special reference to (1) misappropriation by servants, (2) misappropriation of articles parted with under mutual mistake as to their nature.

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### THE LAW OF PROPERTY AND PRINCIPLES OF CONVEYANCING.

*Candidates are not to attempt more than NINE questions, but these should include  
Nos. I., III., V III., and XI.*

- I. What provision is made by—(1) The Conveyancing and Law of Property Act, 1898, with respect to (a) the estate of mortgagors in mortgaged premises, (b) the method of reconveyance on the discharge of a mortgage, and (c) the presumption of survivorship in a case where two persons have died under circumstances rendering it uncertain which of them survived; and (2) The Wills, Probate and Administration Act, 1898, with respect to (a) the failure of testamentary gifts by lapse or ademption, and (b) the right of an executor to the undisposed residue of the estate of his testator; and (3) The Registration of Deeds Act, 1897, with respect to the conditions under which a registered deed will be entitled to priority?
- II. Explain briefly—(1) The nature and operation of (a) a lease and release under the Statute of Uses, (b) a transfer of the fee simple of land under the Real Property Act; and (2) the conditions requisite to the effective operation of (a) a conveyance by a tenant in tail of the fee simple to a

purchaser, and (b) a conveyance by a tenant for life of the fee simple to a purchaser under the Conveyancing and Law of Property Act.

III. Draw limitations, exhibiting the differences between—(1) a conveyance of the fee to a “joint tenant” and a “tenant in common”; (2) a legal and an equitable contingent remainder; (3) a contingent remainder and an executory interest; and (4) a general and a special power of appointment; the limitation in each case being by deed.

IV. Discuss the following cases, stating the principles involved:

(1) A by his will devises and bequeaths real and personal property to trustees, on trust to accumulate the income at compound interest for 25 years from his death, and thereafter upon trust to hold both the original fund and the accumulations for his daughter B for her life—with remainder on trust for any husband of B who may survive her; and after the death of the survivor of B and her husband, in trust for such children of B as shall then be living.

(2) A deed of settlement gives to A a power of appointment over a sum of £1000 in favour of all or any one or more exclusively of his children B, C and D; and subject to such power gives the same to B, C and D equally. A appoints £500 to B, £200 to C, and leaves £300 unappointed. How will the unappointed part be distributed where the original settlement contains the usual hotchpot clause?

V. (1) Distinguish between the interest of a lessee under a lease to commence in futuro, and under an agreement for a lease.

(2) What was the effect at common law of a severance of the reversion upon the obligations of a lessee? To what extent has this been modified by legislation?

(3) What remedies (other than distress) has a landlord under a lease drawn in the usual form? and

(4) What goods are exempted from distress under the law in force in this State?

VI. Explain the meaning of (1) common law prescription, and (2) the doctrine of a lost grant, in relation to the acquisition of easements by long user. Consider also, in the light of recent decisions, the applicability of these doctrines under the law in force in this State.

- VII. (1) A duly agrees to sell freehold land to B under an open contract. Advise B as to his legal rights in the case where (a) A is unable to make a good title; (b) A refuses to make a good title; and (c) A knew that he had no title at the time when he entered into the contract.
- (2) A duly mortgages freehold land held under a common law title to B. Prior to the mortgage A had granted a lease of part of the land to C. Subsequently to the mortgage A grants a lease of another part to D. Advise B as to his rights with respect to C and D.
- VIII. What provision is made by the Real Property Act with respect to—(1) The conditions required to be fulfilled by an applicant who seeks to bring land under the Act; (2) the effect of the issue of a duly registered certificate of title; (3) the cases in which such a certificate may be defeated; (4) the covenants implied in a mortgage; and (5) the method prescribed for the protection of equitable interests?
- IX. State, in substance, the provisions usually inserted in a marriage settlement of personalty for the benefit of the issue of an intended marriage.
- X. By what means may property in chattels personal be transferred from one person to another?
- XI. Write a short explanatory note upon each of the following:—
- (1) The proper mode of discharge as regards a registered bill of sale;
  - (2) the nature and conditions of the security to be taken by a person lending money on a growing crop of wheat;
  - (3) the nature and conditions of the protection accorded to policies of life insurance under the Insurance Act, 1902; and
  - (4) the effect of the assignment of the goodwill of a business on the obligations of the vendor (in default of express stipulation).

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EQUITY AND COMPANY LAW.

- I. Write a short note, with illustrations, on the following:—
- (1) “Equity leans against double portions.”
  - (2) Election.
  - (3) “Delegatus non potest delegare.”
  - (4) Consolidation of mortgages.

II. Under what circumstances will a legal mortgage be postponed to a subsequent equitable security?

A lent £500 to B to enable him to purchase Blackacre, and B agreed to execute a legal mortgage of Blackacre to A, on completion of the purchase, to secure such loan. B completed the purchase, and without the knowledge of A deposited the title deeds with C to secure an advance made to him by C. C subsequently heard of A's charge, and called on B to execute a legal mortgage of Blackacre to him. A thereupon gave notice to C of his charge. Discuss the rights of A and C.

• III. Explain what is meant by (1) the Exclusive, (2) the Concurrent, and (3) the Auxiliary jurisdictions in Equity. How far do these distinctions exist in New South Wales? Give illustrations.

IV. At his death A's property consisted of (1) £1000, (2) leasehold lands subject to a mortgage, and (3) freehold lands which he had purchased before his death, but without having paid the purchase money. He owed other moneys. By his will A directed that his debts should be paid by "his executors out of his estate," and makes the following devises and bequests (i.) £500 to B, (ii.) his leaseholds to C, (iii.) his freeholds to D, and (iv.) the residue of his personalty to E. Indicate how the debts are to be paid as between the several assets, giving reasons for your answer.

V. In what cases will a Court of Equity decree specific performance of a parol agreement relating to lands?

A was a yearly tenant of X farm and Y farm, of which B was the owner in fee, at a rental of £100 per annum for each farm. A verbally agreed with B (1) to buy X farm for £2000, and (2) to take a lease of Y farm for five years at a rental of £120 per annum, payable quarterly. A remained in possession of both farms, and paid B (i.) £1000 on account of the purchase money of X farm, and (ii.) £30 as one quarter's rent of Y farm. B died, and his executors refused to complete the purchase or execute the lease. Advise A as to his rights.

VI. A, the registered owner of 100 acres of conditionally purchased land, agreed to sell the same to B as freeholds for £200, B to pay A £25 to enable A to convert the same

into freeholds. The agreement, as reduced to writing, merely stated that A agreed to sell the lands to B as freeholds for £200. A instituted a suit for specific performance of the written agreement, with the variation as to the payment of the £25. B filed a statement of defence, and a counter-claim for specific performance of the agreement as written. Discuss the rights of A and B.

VII. (1) A by his will appointed B and C his executors and trustees, and empowered them to appoint new trustees. B died in the testator's life time, and C died after proving the will and partially administering the trusts thereof. The trust property consisted of land and shares in a bank. Advise the beneficiaries as to procuring the appointment of new trustees, and vesting the trust property in them.

(2) Land is vested in trustees on trust for A for life, with remainder in fee to his children. A is desirous of accepting an offer to take (i.) an occupation lease of a portion of the land for a term of eight years, and (ii.) a building lease of another portion for 20 years. Can this be done, and if so, how?

VIII. Write a short note on the practice affecting the following :—

- (1) Appearance to a statement of claim.
- (2) The rights of the plaintiff on default of such appearance.
- (3) Discovery of documents.
- (4) Motion for decree.
- (5) Service on an infant defendant, and appearance on his behalf.

IX. A, B and C are the owners of a business. They wish to float the business as a Limited Liability Company under the following scheme :—The company to have a capital of £100,000, divided into 100,000 shares of £1 each; each of the partners to have 20,000 of such shares fully paid up. State, shortly, the necessary steps required by law to carry out such scheme.

X. What are the provisions of the Companies Act as to—

- (1) The making of contracts by a Limited Company.
- (2) The contents of a prospectus inviting persons to subscribe for shares in a Limited Company.



THE LAW OF PROCEDURE.

- I. In an action by A against B, commenced by writ of summons specially indorsed, A declares upon the common indebitatus counts. Advise A as to the courses open to him in the event of B (1) omitting to verify his pleas; (2) pleading several pleas without leave; (3) pleading set off without giving particulars of such set off; (4) pleading as to part only of the money claimed.
- II. In what cases may a Judge of the Supreme Court (1) order a cause to be tried before a referee; (2) try an action in the Supreme Court without a jury; (3) direct the jury to return a verdict for the plaintiff without hearing evidence (4) set aside an order previously made by himself?
- III. (1) Under what circumstances may a judgment regularly signed by default be set aside? Explain the procedure.  
(2) Explain the procedure for enforcing an order for the payment of costs made in Chambers.
- IV. Write a short explanatory note on each of the following:—  
(1) Change of venue; (2) feigned issue; (3) notice to admit; (4) writ of inquiry; (5) misjoinder.
- V. Give a brief account of the provisions of the Commercial Causes Act, 1903, and state what judicial directions may be given thereunder in regard to the trial of commercial causes.
- VI. When may the High Court entertain an appeal from the Supreme Court of a State? Does an appeal lie from the High Court to the Privy Council?
- VII. Explain the provisions made by the Service and Execution of Process Act, 1901, for the execution in one State of the Commonwealth of warrants issued in another State.
- VIII. (1) In what cases may a person be sued in a District Court other than the Court within whose jurisdiction he is residing?  
(2) Advise B as to his position in each of the following cases:—  
(i.) A, who holds two overdue promissory notes for £100 and £150 respectively made by B in his favour, institutes two separate actions against B in the District Court.

- (ii.) A sues B in the District Court on a promissory note for £250, giving B credit for £75 in respect of goods sold and delivered by B to A.
- IX. Give an account of the provisions of the District Courts Act, 1901, relating to (1) joinder of causes of action; (2) payment into Court; (3) references to arbitration; (4) obtaining a jury; (5) execution against the person.
- X. Enumerate the various modes of appealing from the decisions of Justices, and give an outline of the procedure to be followed in prosecuting any one such mode of appeal.
- XI. In what cases must a Justice (1) grant, (2) refuse bail to a person committed for trial? Is there any appeal against a refusal by a Justice to grant bail?
- XII. State the provisions of the Crimes Act, 1900, relating to each of the following:—(1) Writs of error; (2) indictments for conspiracy; (3) restitution of stolen property; (4) the jurisdiction of Justices to deal summarily with indictable offences.

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### PLEADING AND EVIDENCE.

- I. Explain the objects contemplated by the Common Law system of pleading, and indicate generally how these objects are attained in that system.
- II. A, being indebted to B in the sum of £30 for goods sold and delivered, sends B an order for further goods to the value of £20. B agrees to supply these if A will give his promissory note at three months to cover the past debt and the order for further goods. A agrees, and accordingly gives B his promissory note for £50. B fails to supply the further goods ordered. Upon maturity the promissory note is dishonoured, and B sues A upon it. Advise A as to the defences (if any) which can be set up by him, and draw pleas in accordance with your advice.
- III. Explain and illustrate the following rules of pleading:—  
 (i.) A traverse must not be too large nor too narrow.  
 (ii.) There must be no departure in pleading.
- IV. Examine the nature and effect of the following pleadings, and state when they are applicable:—(1) Common counts; (2) *nul tiel record*; (3) *liberum tenementum*; (4) *plene administravit praeter* and (5) joinder of issue.

- V. Explain, and illustrate by means of examples (without pleadings), the meaning of the following terms and expressions:—(1) Aider by pleading over; (2) aider by verdict; (3) prefatory averments; (4) duplicity in pleading; and (5) respondeat ouster.
- VI. Write a short explanatory note on each of the following:—  
(1) Evidence of accomplices; (2) examination on the *voir dire*; (3) evidence of character; (4) refreshing witnesses' memory; and (5) presumption of legitimacy.
- VII. State in what cases secondary evidence of a written document is admissible. Discuss the following cases:—  
(i.) A, the payee, sues B, the maker, on a dishonoured promissory note. B pleads avoidance of the note by material alteration whilst in A's hands. B, without giving any notice to produce, calls for the production of the note at the hearing, and the note not being produced, tenders secondary evidence of its contents as originally made.  
(ii.) In an action by A against B, A serves C, a stranger to the action, with a subpoena duces tecum requiring production of an original document material to the cause which is in C's possession. C, without any lawful justification or excuse, refuses to produce the document. A thereupon tenders secondary evidence of its contents.  
(iii.) A sues B for slander, and calls C as a witness to prove that B read to him (C) an article in a newspaper imputing dishonesty to A. Objection is taken that the words read by B to C cannot be given as evidence without production of the newspaper.
- VIII. "In criminal proceedings admissions made by or on behalf of a party to the litigation are received in evidence less readily than in civil cases." Explain and illustrate this statement by reference to decided cases.
- IX. Discuss the admissibility of the evidence tendered in each of the following cases:—  
(i.) A is called as a witness, and gives evidence for the plaintiff. In the defendant's case evidence is tendered to prove that the plaintiff promised A that if he won the case he would give A a gold watch.  
(ii.) A sues B for infringement of a patented machine. A calls C, an expert witness, who, after examination of A's

specification, is asked (1) in chief, (2) in cross-examination, whether in his opinion B's machine constitutes an infringement of A's patent.

(iii.) In a prosecution for rape, the prosecutrix is asked in cross-examination questions suggesting previous unchastity (1) with A, the accused, and (2) with B, a stranger, and gives a denial thereto. The prosecution thereupon tenders the evidence of B to confirm her denial. In the case for the defence evidence is tendered to prove unchastity of the prosecutrix (1) with A, (2) with B.

(iv.) A sues B for the publication of a libellous poster, which he alleges to have been intended to represent a caricature of himself (A). Evidence is tendered by the plaintiff of remarks made by members of the public who saw the poster, for the purpose of showing that they took the caricature to be meant for A.

## BANKRUPTCY, DIVORCE AND PROBATE.

### SECTION I.—BANKRUPTCY.

I. State four of the Acts of Bankruptcy specified in the Bankruptcy Act.

(1) A, a trader, was indebted to B for £500. B pressed for payment, and A assigns to B the whole of his property as security for the debt of £500, and also as security for a present advance by B.

(2) A bankruptcy notice is served on A, who does not comply therewith. A bankruptcy petition alleging non-compliance with such notice is presented against him. A, by way of objection, sets up an equity against the validity of the judgment on which the bankruptcy notice is founded.

Discuss the effect of A's action in each case.

II. What are the rights and duties of the Official Assignee as to onerous property of a bankrupt? What are the powers of the Official Assignee as to the disclaimer of leasehold property?

III. A, a lessee of a house, sublets rooms in such house to B, C, and D respectively as offices. A's rent is in arrears, and on his landlord threatening to distrain, A voluntarily sequestrates his estate. Discuss the landlord's rights of distress as against A, B, C, and D.

IV. State briefly what is meant by the doctrine of "reputed ownership."

How is the application of the doctrine affected (1) by the original ownership of the goods, and (2) by the Bills of Sale Act, 1898?

SECTION II.—DIVORCE.

I. Write a short note on (1) Permanent alimony, (2) Conduct conducing to adultery, (3) The grounds for a decree of nullity of marriage, (4) Jactitation of marriage.

II. What are the powers of the Court as to the property of a husband or wife in the event of non-compliance by either with a decree for restitution of conjugal rights? How may the orders of the Court made in pursuance of such powers be enforced?

III. A and B were married in Sydney in 1899. A, the husband, was born in England; he came to New South Wales in 1890, and stayed in New South Wales till 1899, working at his trade. Shortly after the marriage A and B went together to live in Noumea, where A was employed for 12 months. They then returned to New South Wales, and lived together for a few months. A deserted his wife in 1901, leaving a letter stating that he would never live with her again and intended to make his home permanently in England. B (the wife) continued to live in New South Wales, and in 1905 petitioned for dissolution of marriage. Can she succeed? Give reasons for your answer.

SECTION III.—PROBATE.

I. "It is a general principle that an executor, administrator or trustee is not entitled to any allowance for personal trouble or loss of time in the execution of his duties."

Discuss the application of this principle in New South Wales.

By his will a testator bequeathed £100 to A, and appointed A his executor and trustee. A took out probate of the will, and administered the assets. Can A be allowed commission?

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**FACULTY OF LAW.**

- II. What protection is afforded by the Wills, Probate and Administration Act to an executor or administrator distributing assets (1) against liability to creditors, and (2) to rents, covenants or agreements under a lease entered into by the deceased?
- III. What is the nature of an administration bond? What steps should be taken (1) by a person interested in the estate and (2) by a surety to the bond where the estate is being wasted?
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## FACULTY OF SCIENCE.

## SECOND YEAR EXAMINATION.

## PHYSICS I.

## HONOURS.

*Six questions to be attempted.*

1. (a) If matter be supposed capable of successive subdivision into mechanical atoms, chemical molecules and atoms, etherergic molecules and atoms, and atomic molecules and atoms, why must such an equation as

$$\left(p + \frac{a}{V^2}\right)(V - b) = k\theta$$

necessarily fail to fully express the relations of pressure  $P$ , volume  $V$ , and temperature  $\theta$ ?

- (b) In what way may heat be conceived to exist in the solid, liquid, and gaseous forms of matter, and how is it supposed to be radiated, conducted, etc.?
2. (a) Give an account of the flow of heat from a point source ; and (b) from a line source, in a thermally anisotropic medium, and state how the conductivity along different axes may be measured.
3. (a) Discuss the views of Cagnard de la Tour, Andrews, Cailletet and Colardeau, Ramsay, and others on the question of the disappearance of the meniscus at the surface of separation between liquid and gas. (b) What was Hinrich's view of the essential difference between the liquid and gaseous states? (c) What was Preston's view?
4. (a) How may the density of liquids at different temperatures be measured without introducing uncertainty through the want of exact knowledge as to the effect of heat on the dimensions of the containing vessels? (b) Give an account of the difficulties of exact thermometry, and compare platinum-wire and mercury-in-glass thermometry.

5. (a) Give an account of calorimetry of precision; or (b) of the general theory of the flow of heat.
6. (a) What is known of the properties of solid æolotropic substances, and of their behaviour under various forms of stress producing only small strains? (b) Indicate how to determine the elastic constants.
7. Explain fully the theory of combustion of chemical substances, and the significance of mode of union in this theory.
8. (a) It was shewn by Damien that the fusion point of some organic substances was represented by
 
$$t = t_0 + a(p-1) - b(p-1)^2,$$
 $t_0$  denoting the melting point at the pressure of one atmosphere. What may be inferred from this, and what is known of the behaviour of naphthylamine in relation thereto?  
 (b) How is the equation
 
$$a = T(V - V') \frac{dp}{dT}$$
 deduced,  $a$  denoting heat absorbed,  $V$  volume,  $p$  pressure, and  $T$  the absolute temperature?
9. (a) Give an account of some additive physical properties of chemical substances. (b) What is known of atomic refraction, and how does the structure of the chemical molecule enter into the question of physical property?
10. Outline the general theory of electrolytic dissociation, and distinguish between it and ordinary dissociation.

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 PHYSICS II.

## HONOURS.

1. Explain and criticise the present systems of electric units. Find the dimensions of resistance in electro-magnetic measure, and describe with full detail some experimental method of finding the absolute value of a resistance.
2. Find an expression for the force on each unit area of a charged conductor, and show how it leads to a practical method of measuring differences of potential.



## MARCH EXAMINATION

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3. Describe with full theoretical and practical detail some method of finding the specific heat of water. Critically discuss recent experiments on this subject by electrical methods.
  4. Show how a quantitative theory of electro-magnetism may be elaborated from the results of some one experiment.
  5. Describe some form of ballistic galvanometer, indicating for what sorts of measurements the instrument is suitable. Give the theory of the instrument and describe fully how the apparatus may be calibrated.
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## DEPARTMENT OF ENGINEERING.

## FIRST YEAR EXAMINATION.

## APPLIED MECHANICS.

## HONOURS.

1. (a) A train weighing 200 tons is brought from rest to a speed of 90 miles per hour in 5 minutes on up grade of 1 in 50.  
Assuming the frictional resistance to be 10 lbs. per ton, find the force exerted by the engine and the total distance run.  
(b) A truck weighing 16 tons, travelling with a speed of 10 miles per hour, collides with another stationary one, weighing 12 tons. Find the resultant speed of the combination, and the energy lost in the impact.  
(c) A cage of 2000 lbs. weight is lifted on an endless chain from rest with an acceleration of 8 feet per second. Find the pull exerted on the cage, and if the power is shut off at the end of 20 seconds, how much higher will the cage rise?  
(d) A pompom fires 200  $\frac{1}{2}$ -lb. shells per minute with an initial velocity of 1800 feet per second. Find the steady force of the recoil and the horse-power being developed.
2. Make an outline sketch of a roof-truss suitable for a span of 40 feet; draw the reciprocal figures for dead load and wind pressure, and make sketches showing the most important joints and connections. Assume all necessary data.
3. Show how to design a plate-web girder of 40 feet span to carry a live load of 2 tons and a dead load of  $\frac{1}{2}$  a ton per foot run. Make sketches showing the construction.
4. Write a brief essay, illustrated by neat and accurate sketches, on *Parallel Motions*. Mention, wherever possible, the practical applications of the mechanisms you describe.

SECOND YEAR EXAMINATION.

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APPLIED MECHANICS IV.

HONOURS.

1. If on a piston of 120 square inches area, and weighing, with piston rod, 290 lb., there is at a certain instant a pressure of 130 lb. per square inch on one side more than what there is on the other, and if the piston acceleration at that instant is 420 feet per second in the direction in which the steam is urging the piston, what is the total force acting at the cross-head?

If this acceleration occurs when the piston is one-quarter of its stroke from one end, assuming an indefinitely long connecting rod, how many revolutions per minute is the engine making? The crank is 1 foot long.

2. Discuss Lord Kelvin's method of developing a scale of temperature from the Second Law of Thermodynamics, and show that the scale so developed agrees with that of a perfect gas thermometer.

Examine, in connection with this, Rankine's statement of the Second Law.

3. Show, by graphical construction or otherwise, how you would determine the straining actions in crank shafts (a) in a simple crank shaft supported on the bearings with a known pressure on the crank pin; (b) in an engine crank shaft, carrying a spur flywheel of known weight, and subjected to a given crank-pin pressure. Write a specification of the tests which you would adopt for the material of the crank shaft.
  4. It is required to utilise a river where the fall is 20 feet in 400 yards. The average dry weather flow is 30,000 cubic feet per minute; in flood time the flow is many times greater, but the fall is reduced 4 or 5 feet by back water. Describe and sketch a water motor which would give a good efficiency and not be much affected by the back water.
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## THIRD YEAR EXAMINATION.

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CIVIL ENGINEERING—MATERIALS AND STRUCTURES III.  
HONOURS.

1. Assuming all necessary data, explain the method of calculating the maxima stresses in the girders of a swing bridge; also the deflection at the ends, when the bridge is swinging under a dead load.
2. The Hawkesbury River at Richmond when in flood rises some 66 feet above summer level. The depth of water at summer level is 4 feet, and 16 feet of sand mixed with gravel overlies the rock. It is required to construct a low level bridge 20 feet roadway, with deck 26 feet above summer level; at this level the width from bank to bank is 650 feet.

Describe, design, and illustrate by sketches a suitable type of bridge, and especially the foundations. Calculate its stability against overturning during floods, assuming a flood velocity of 6 miles per hour—to a water pressure of 140 lbs. per square foot.

3. Write an essay on reinforced steel concrete floors, and show how you would design the floors of a warehouse to carry 3 tons per square foot. State fully the various equations and assume all necessary data.
4. Investigate the stresses in a steel arched bridge, hinged at the springing and continuous at the centre, and make sketches showing a cross section of the arched rib, and the design of the rib at the abutments.
5. Investigate the equations of bending moments, shearing stresses, slope and deflection in a continuous girder of two spans of unequal length, loaded with two concentrated loads in each span.
6. Explain the method of determining the shearing stresses and bending moments at any panel of a Pratt-truss, carrying a double line of railway, by Cooper's concentrated load system. Show also how you would calculate the central deflection in the truss when loaded equally at each panel point. Assuming all necessary data.

RAILWAY AND HYDRAULIC ENGINEERING.

HONOURS.

1. Write an essay on the Electric Tramway system of Sydney, giving sketches of the permanent way.
2. It is proposed to construct a subaqueous tunnel for a double line of railway from Milson's Point to Fort Macquarie. Assuming a depth of water of 40 feet overlying the mud, also the shores vertical and consisting of sandstone rock; design, describe and illustrate by sketches a suitable tunnel, also the method you would employ for its construction.
3. What considerations would guide you in selecting a catchment area for the water supply of a large city. Describe and illustrate by sketches a suitable earthwork dam to impound water to a depth 80 feet, and write a specification governing its construction.
4. Write an essay on the "septic tank" treatment of sewage, and describe fully the changes the sewage undergoes. Make sketches of any plant you have seen or read about.
5. Write an essay on the "Reticulation of the Sewerage System of Sydney."
6. Write an essay on the Construction of Breakwaters, and make sketches illustrating the design and method of construction adopted in some well-known examples.
7. Write an essay on the Compound Locomotive Engine, and state the types in most common use in America and in Europe. Compare the compound with the simple locomotive, and state the conditions most favourable to develop the advantages of each type. Give the ratio of cylinder volumes used, and make sketches of the cylinder ports and valves found to be most suitable. Sketch also some form of automatic valve for using high pressure steam in the low pressure cylinder at starting.

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MECHANICAL ENGINEERING.

HONOURS.

*Not more than THREE questions should be attempted.*

1. Discuss briefly the present state of our knowledge of the properties of superheated steam.

- Describe, with the aid of sketches, any modern type of superheater, and give some particulars of the performance of engines and turbines using superheated steam.
2. In connection with the phenomenon commonly known as *cylinder condensation*, discuss in detail the questions of *valve leakage* and of *cylinder drainage*.
  3. Summarise the desirable characteristics of a working substance for refrigerating machines, and discuss the properties of those most commonly used. Deal specifically, amongst other matters, with those of cost, bulk, pressures involved, and performance in actual operation.
  4. Write a brief essay on any question connected with thermodynamics, or its applications, to which you may have given special attention during the year.
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## \*MATRICULATION EXAMINATION.

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### LATIN.

1. Translate into English, extracts from Livy, Book xxvi.
2. Translate, with brief comments—
  - (a) Fulvius Romam comitiorum causa arcessitus quum comitia consulibus rogandis haberet, praerogativa Voturia iuniorum T. Manlium Torquatum et T. Otacilium *absentem* consules dixit.
  - (b) Permutatis provinciis, Siculi in senatum introducti multa de Hieronis regis fide perpetua erga populum Romanum verba fecerunt.
  - (c) Trebia, Trasumennus, Cannae quid aliud sunt quam monumenta occisorum exercituum consulumque Romanorum?
3. Translate into Latin—
  - (a) Do you really believe that the town will not be taken?
  - (b) There is no doubt that the Carthaginians would have been victorious if Hasdrubal had been able to join forces with his brother.
  - (c) Tullius was afraid that his friend was not going to keep his promise.
  - (d) It is said that all the Fabii went to offer up sacrifices on the Quirinal Hill to Hercules, whom they regarded as the founder of their race. They had not armed themselves, because it was usual for an enemy not to molest those engaged in such ceremonies. But the Veientes lay in ambush and slew every one of them, so that of this great family there remained only one boy, who had been left at Rome. This boy grew to manhood; for it was the pleasure of the gods that great deeds should be done by the Fabii in after times.

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\*NOTE.—The time allowed for each paper is three hours, except where otherwise stated.

4. Translate—

Fabius ad Anxur oppugnandum sine ulla populatione accessit. Anxur fuit urbs prona in paludes. Ab ea parte Fabius oppugnationem ostendit. Circummissae quattuor cohortes cum C. Servilio Ahala cum imminentem urbi collem cepissent, ex loco altiore, qua nullum erat praesidium, ingenti clamore ac tumultu moenia invasere. ad quem tumultum obstupefacti, qui adversus Fabium urbem infimam tuebantur, locum dedere scalas admovendi, plenaque hostium cuncta erant, et inmitis diu caedes pariter fugientium ac resistentium, armatorum atque inermium fuit. Cogebantur itaque victi, quia cedentibus spei nil erat, pugnam inire.

GREEK.

1. Translate into English, extracts from Plato, Apology.
2. Translate, and give explanatory notes upon grammatical and historical points—

(a) ἦλθον ἐπὶ τινὰ τῶν δοκούντων σοφῶν εἶναι, ὡς ἐνταῦθα, εἰ πέρ που, ἐλέγξων τὸ μαντεῖον καὶ ἀποφανῶν τῇ χρησμῷ ὅτι οὐτοσί ἐμοῦ σοφώτερός ἐστι, σὺ δ' ἐμὲ εἴησθα. διασκοπῶν οὖν τοῦτον—ὀνόματι γὰρ οὐδὲν δέομαι λέγειν, ἣν δέ τις τῶν πολιτικῶν, πρὸς ὃν ἐγὼ σκοπῶν τοιοῦτόν τι ἔπαθον, ὧ ἄνδρες Ἀθηναῖοι—καὶ διαλεγόμενος αὐτῷ, ἔδοξέ μοι οὗτος ὁ ἀνὴρ δοκεῖν μὲν εἶναι σοφὸς ἄλλοις· τε πολλοῖς ἀνθρώποις καὶ μάλιστα ἐαυτῷ, εἶναι δ' οὐ.

(b) ἐγὼ γάρ, ὧ Ἀθηναῖοι, ἄλλην μὲν ἀρχὴν οὐδεμίαν πώποτε ἦρξα ἐν τῇ πόλει, ἐβούλευσα δέ· καὶ ἔτυχεν ἡμῶν ἡ φυλὴ Ἀντιοχίς πρυτανεύουσα, ὅτε ὑμεῖς τοὺς δέκα στρατηγοὺς τοὺς οὐκ ἀνελομένους τοὺς ἐκ τῆς ναυμαχίας ἐβούλεσθε ἀθρόους κρίνειν, παρανόμως, ὡς ἐν τῇ ὑστέρῳ χρόνῳ πᾶσιν ὑμῖν ἔδοξε.

3. Translate—

Οἱ δὲ Θηβαῖοι εὐθὺς μὲν μετὰ τὴν μάχην ἔπεμψαν εἰς Ἀθήνας ἄγγελον ἐστεφανωμένον, καὶ ἅμα μὲν τῆς νίκης τὸ μέγεθος ἐφραζον, ἅμα δὲ βοηθεῖν ἐκέλευον, λέγοντες ὡς νῦν ἐξείη Λακεδαιμονίους πάντων ὧν ἐπεποιήκεσαν αὐτοὺς τιμωρήσασθαι. τῶν δὲ Ἀθηναίων ἡ βουλὴ ἐτύγχανεν ἐν ἀκροπόλει καθημένη. ἐπεὶ δ' ἤκουσαν τὸ γεγεννημένον, ὅτι μὲν σφόδρα ἠνιάθησαν πᾶσι δῆλον ἐγένετο· οὔτε γὰρ ἐπὶ ξένια τὸν κήρυκα ἐκάλεσαν,



περί τε τῆς βοηθείας οὐδὲν ἀπεκρίναντο. καὶ Ἀθήνηθεν μὲν οἷτως ἀπῆλθεν ὁ κῆρυξ. πρὸς μέντοι Ἰάσονα, σύμμαχον ὄντα, ἔπεμπον σπουδῇ οἱ Θηβαῖοι, κελεύοντες βοηθεῖν. ὁ δ' εὐθὺς διεπορεύθη εἰς τὴν Βοιωτίαν.

4. Translate into Greek—

- (a) We feared the citizens might attempt a revolution.
- (b) I should have conquered him, strong though he is, had he not run away.
- (c) They encamped in the middle of the island.
- (d) Messengers came to Athens saying that the whole army had been destroyed, and that the generals themselves were dead. At first no one believed that the news was true. Some said that the messengers wished to deceive the people; others that they knew the enemy had been defeated. But at last they perceived that the messengers spoke the truth.

FRENCH.

[The answers are to be given up in two separate bundles, and marked clearly A and B. Answers given up in the wrong bundle will receive no marks. Each sheet must be clearly marked with the letters A and B.]

A.

- 1. Translate into English, extracts from Berthon, Specimens of Modern French Prose.
- 2. (a) Write down the 3rd person singular, present indicative, perfect indicative, and imperfect subjunctive of the underlined verbs in the above passages, viz., *pesa*, *crurent*, *reconnaître*, *vivaient*, *rappelait*, *mettent*, *combattre*.
- (b) Rewrite in 1 (a) the sentence, "*Les nobles habitants . . . par lui*," changing *habitants* and the dependent words to the singular and *protecteur* and the dependent words to the plural, and making the whole statement refer not to the past but to the future.
- (c) Give the rules for the use of *tout* as an adverb.

B.

3. Translate into French—

- (a) i. Please come to my house at a quarter to five.

- ii. The wall round the house is eight foot high, a foot and a half broad, and eighty yards in circumference.
  - iii. I for my part do not like him, but he and his brothers love each other.
  - iv. How old do you think me ?
  - v. I should say you were about twenty.
  - vi. No. I am twenty-three, nine months and eight days, and shall be twenty-four on the fifteenth of May.
- (b) Of all the knights that lived in Fairyland, there was none more kindly or more courteous than Sir Calidore. He was beloved of every one; for to his natural gentleness of spirit and charm of manner he added a manly bearing and grace of language that stole men's hearts away. He was tall and strong, and very famous for his bravery in battle, for he had been known without any help but his own good lance and sword, to face three proven champions; and he never employed his great gifts for mean purposes, or flattered any one, for he loved steadfast truth and honesty. Spenser tells the story of his adventures, and Spenser saw in him the exact image of his departed friend, the blameless Philip Sidney.

4. Translate (at sight)—

Il y avait en ce temps-là à Domrémy, village de la haute Lorraine champenoise, sur le penchant boisé des Vosges, non loin de la petite ville de Vaucouleurs, une famille dont le nom était d'Arc. Le père de famille était un simple laboureur, mais un laboureur qui cultivait son propre héritage et dont le toit, bâti et possédé par ses pères, devait appartenir à ses fils. Si l'on en juge par les mœurs et par les habitudes domestiques de la famille, il y avait dans cette maison de paysans le loisir et la piété que donne l'aisance, et cette noblesse de cœur et de front qu'on retrouve en ceux qui cultivent la terre paternelle plus qu'en ceux qui travaillent dans l'atelier d'autrui, parce que la possession d'un coin de terre, quelque petit qu'il soit, conserve au paysan l'indépendance de l'âme en lui faisant sentir qu'il tient son pain de Dieu. Le père s'appelait Jacques d'Arc; la mère, Isabelle Romée, surnom qu'on donnait dans ces contrées aux pèlerines qui étaient allées à Rome visiter les pieux tombeaux des martyrs.

## GERMAN.

1. Translate into English, extracts from Hauff, Das Wirtshaus im Spessart.
2. (a) Write down the 2nd person singular imperative and perfect indicative of the underlined verbs in the above passages, viz., bittet, ansah, galt, entgegenging, schlug, lag, warf, stieg, rief.  
(b) Give the gender, genitive singular, and nominative plural of Bär, Schuh, Mauer, Segel, Beil, Bett, Ding, Banf.  
(c) Mention some uses of the verbs *wollen* and *sollen* that do not correspond with the English *will* and *shall*.
3. Translate into German—
  - (a) i. Have you not seen anything?  
ii. His garden and mine are both beautiful.  
iii. I who speak to you, am guilty.  
iv. Of what are you guilty?  
v. What day of the month is it?  
vi. It is Tuesday, the fourteenth of February, 1905 (*Numerals in full*).
  - (b) Once upon a time there lived a king who was so kind and just to his people, that Merlin, the good magician, gave him a wonderful present. It was a mirror that by his art he had made round like a ball and hollow inside. He who looked into it saw not his own face, but all that concerned him, though it might be happening very far away. It was very useful to the king. He could, for instance, learn from it the approach of an enemy more surely and quickly than from the swiftest messenger.
4. Translate (at sight)—

Zart und schwach auf die Welt gekommen, war James Watt lange Zeit eine grosse Sorge für die Eltern. Er war still und schüchtern, und blieb geistig hinter allen Knaben seines Alters zurück. Seine Lehrer klagten über den schweigsamen, träumerischen Schüler, und die Verwandten schalten ihn träge und lässig. Aber faul war er nicht. Alle Erscheinungen und Vorgänge in der Natur zogen ihn mächtig an: stundenlang konnte er still sitzen und darüber nachdenken. Das verdross seine Ver-

wandten sehr, die nicht begreifen konnten, was in der Seele des Knaben vorging. "Sieh nur den dummen Jungen an!" so rief einmal seine Tante, als sie ihn vor ihrem Theekessel sitzend und den Dampf beobachtend fand; "Da sitzt er wie immer, faul und zerstreut." Sie wusste nicht, dass der verachtete Neffe sich schon zur Erfindung der Dampfmaschine vorbereitete.

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ARITHMETIC.

PASS.

TWO HOURS AND A HALF.

1. By how much is the sum of  $15\frac{2}{3}$  and  $14\frac{4}{5}$  less than the difference of  $321\frac{2}{3}$  and  $290\frac{1}{3}$ ?
2. Find the G.C.M. of 70818, 247863 and 516705.
3. Express £17 19s.  $8\frac{3}{4}$ d. as the decimal of £100.
4. How often is £3 17s.  $10\frac{1}{2}$ d. contained in £1000, and what is the remainder?
5. On a sum of £3,803,401 the interest received for a year amounted to £182,222 18s. 9d. What is the rate of interest realised per cent. per annum?
6. If 1 lb. avoirdupois = 7000 grns. troy, shew that 1 oz. troy = 1.097 oz. avoirdupois.
7. A cistern is 2 metres by  $1\frac{1}{2}$  metres by 1 metre. How many cubic feet of water will it contain? 1 metre = 39.4 inches.
8. The length of a rectangular field is twice its breadth, and its area is 20 acres; find its length and breadth.
9. Books are sold at a discount of 10 per cent. off the published price, and the seller then makes a profit of 20 per cent. At what discount off the published price does the bookseller get his books?
10. Trees are planted all round the boundary of the field in Question 8, each tree being  $7\frac{1}{2}$  feet from the nearest boundary, and 15 feet from its neighbour in the same line. How many trees will be required?
11. A man sells out £3000 N.S.W. 4 per cent. Stock at 99 and invests the proceeds as far as possible in Sugar Company's £20 Shares at  $39\frac{7}{8}$ . If the dividend is 10 per cent. what difference does the transfer make in his annual income?

# MARCH EXAMINATION.

CCXV.

## ALGEBRA.

TWO HOURS AND A HALF.

PASS.

1. Find the value of

$$(a+b)^{\frac{a-c}{2}} + (b+c)^{\frac{a+d}{2}} - [(a+d)]^{d^2}$$

when  $a=5$ ,  $b=3$ ,  $c=-1$ ,  $d=1$ .

2. Divide

$$a^4 + b^4 - c^4 + 4ab(a^2 + b^2) + 6a^2b^2 \text{ by } a^2 + b^2 + c^2 + 2ab.$$

3. Find the highest common divisor and (in factors) the lowest common multiple of  $x^6 + x^4 + x^3 + x$  and

$$3x^5 + 5x^4 + 7x^3 + 7x^2 + 4x + 2.$$

4. Simplify

$$(i.) \frac{a}{b} \left( a + \frac{b-a}{1+ba} \right) \div \left( 1 - \frac{a(b-a)}{1+ab} \right)$$

$$(ii.) \frac{a(b+c-a)}{(a-b)(a-c)} + \frac{b(c+a-b)}{(b-c)(b-a)} + \frac{c(a+b-c)}{(c-a)(c-b)}$$

5. Solve the equations

$$(i.) \frac{(2x+3)^2 - 1}{4} - x^2 - 6 = -1.$$

$$(ii.) \sqrt{2x-5} + \sqrt{x+1} = \sqrt{x+7} + \sqrt{2x-11}.$$

$$(iii.) (2a-b+x)^2 + 2bx = 4a^2 + 2b^2.$$

Verify your answers by substitution.

6. Solve the equations

$$\left. \begin{aligned} \frac{3x+7y}{42} &= \frac{3x}{2} \\ \frac{2x-5y}{3} &= x + \frac{1}{3} \end{aligned} \right\}$$

7. Resolve into factors

$$(i.) 36x^2 - 43xy - 35y^2.$$

$$(ii.) \{(a+b)^2 - (c+d)^2\}^2 - \{(a-c)^2 - (b-d)^2\}^2.$$

8. A man gave away £7 less than  $\frac{1}{4}$  of his money, and had left £30 more than  $\frac{1}{4}$  of it. How much had he at first?

9. A man spent six shillings and eightpence in buying cigars. If he had got five more for his money, they would have cost eightpence less apiece. How many did he buy?

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GEOMETRY.

PASS.

TWO HOURS AND A HALF.

*Candidates may answer Paper A or Paper B, but not portions of both. In handing up their papers, Candidates should mark Paper A or Paper B, as the case may be.*

PAPER A.

1. The angles at the base of an isosceles triangle are equal.
2. Prove that the sums of the angles of a triangle and quadrilateral are respectively two and four right angles.
3. Prove that parallelograms upon the same bases and between the same parallels are equal in area, and deduce the corresponding theorem about parallelograms upon equal bases and between the same parallels.
4. The square on the hypotenuse of a right-angled triangle is equal to, &c. Complete this enunciation, and prove the theorem.  
The side of a square ABCD is 1 inch. X lies in AB so that  $AX=2.XB$ . Find, correct to 3 decimal places, the length of DX in inches.
5. Prove that the complements of the parallelograms about a diagonal of any parallelogram are equal in area.
6. Enunciate and prove the geometrical theorems which correspond to the algebraical identities—  
(i.)  $a(a-b)=a^2-ab$  .  
(ii.)  $(a-b)(a+b)=a^2-b^2$ .
7. In a circle a chord is drawn: show that the angle between the tangents at the ends of this chord is equal to the supplement of twice the angle subtended by the chord at any point in the circumference of the segment opposite to the intersection of the tangents.

8. OT is a tangent to, and OPQ a secant of the circle PQT; prove that  $OT^2 = OP \cdot OQ$ .

PAPER B.

1. With your instruments construct a square whose sides are 1 inch in length. Find the centres of the inscribed and circumscribed circles of this square. Estimate their radii from your figure.
2. Prove that the order of magnitude of the angles of a triangle is the same as that of the opposite sides.  
If the angles are as 1:2:3 find the ratios of the corresponding sides.
3. Prove that the sums of the angles of a triangle and quadrilateral are respectively two and four right angles.
4. Prove that parallelograms upon the same bases and between the same parallels are equal in area, and deduce the corresponding theorem about parallelograms upon equal bases and between the same parallels.
5. Prove that the complements of the parallelograms about a diagonal of any parallelogram are equal in area.
6. Enunciate and prove the geometrical theorems which correspond to the algebraical identities—  
 (i.)  $a(a-b) = a^2 - ab$   
 (ii.)  $(a-b)(a+b) = a^2 - b^2$ .
7. Prove that angles in the same segment of a circle are equal.
8. OT is a tangent to and OPQ a secant of the circle PQT.  
 Prove that  $OT^2 = OP \cdot OQ$ .  
 Further if  $\angle TPQ = \text{a right angle}$  and  $OP = 10$  inches,  $PQ = 20$  inches, find the lengths of OT, TP, TQ correct to one decimal place.

**\* ENTRANCE EXAMINATION**  
FOR THE  
**FACULTIES OF LAW, MEDICINE AND SCIENCE,**  
INCLUDING THE  
**DEPARTMENT OF ENGINEERING AND**  
**P. N. RUSSELL SCHOLARSHIP.**

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**LATIN.**

1. Translate into English, extracts from Livy, Book xxvi.
2. Translate, with brief comments—
  - (a) Cn Fulvius exsulatum Tarquinius abiit. Id ei iustum exsilium esse scivit plebs.
  - (b) Tribuni plebis ex auctoritate senatus ad populum tulerunt, ut M. Marcello, quo die urbem ovans iniret, imperium esset.
3. Translate into English, extracts from Horace, Odes, Book I.
4. Translate, with brief comments—
  - (a) Non Laërtiaden, exitium tuæ  
Genti, non Pylium Nestora respicis?
  - (b) Occidit et Pelopis genitor, conviva deorum,  
Tithonusque remotus in auras,  
Et Iovis arcanis Minos admissus.
  - (c) Eheu cicatricum et sceleris pudet  
Fratrumque. Quid nos dura refugimus  
Aetas?
5. Translate—

Sic eques, sic pedes, ut praeceperat, pugnant, nec dux  
legiones nec fortuna fefellit ducem. multitudo hostium,  
nulli rei praeterquam numero freta et oculis utramque  
metiens aciem, temere proelium iniit, temere omisit;  
clamore tantum missilibusque telis et primo pugnae impetu

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\* NOTE. —The time allowed for each paper is three hours, except where otherwise stated.



ferox gladios et conlatum pedem et vultum hostis ardore animi micantem ferre non potuit. impulsa frons prima et trepidatio subsidiis inlata. et suum terrorem intulit eques; rupti inde multis locis ordines motaque omnia et fluctuanti similis acies erat. dein, postquam cadentibus primis iam ad se quisque perventuram caedem credebat, terga vertunt. instare Romanus; et donec armati confertique abibant, peditum labor in persequendo fuit.

6. Translate into Latin—

Now at that time Jupiter had bidden the Romans to celebrate the great games anew, and many of the Volscians went to Rome to see the sight. But Attius Tullius, going by stealth to the consuls, bade them remember the mischief wrought in Rome by a tumult of the Sabines, and counselled them to prevent the Volscians doing the like. And when the consuls told this to the Senate, they made proclamation that before sunset every Volscian should be gone from Rome. So they went homewards full of wrath at the dishonour done to them. And as they passed by the spring of Ferentina, in the Alban hills, Attius met them and stirred them up to make war with the Romans, who had thus put them to shame. So the Volscians gathered a great host, and over it they set Attius and Cn. Marcius, the banished Roman.

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FRENCH.

*The answers are to be given up in two separate bundles, and marked clearly A and B. Answers given up in the wrong bundle will receive no marks. Each sheet must be clearly marked with the letters A or B.*

A.

1 and 2. Translate into English, extracts from Berthon, Specimens of Modern French Prose; Molière, Les Fâcheux.

B.

3. Translate into French—

In 1569 Elizabeth had refused to decide anything on the question of the Scottish Queen's guilt or innocence. This being so, Mary undoubtedly, by every rule of law and justice, ought to have been set at liberty. She had been accused of matters, which, as Elizabeth herself admitted, were not brought home to her by proof, and of which,

even if they had been proved, the Queen of England had no right to take cognisance. Nevertheless Elizabeth continued to treat Mary as guilty, though she declined to pronounce her so, and to coerce as her subject an independent sovereign who had chosen England for a retreat in the hope of experiencing that hospitable treatment which would have been extended to the meanest Scotchman, if, flying from the laws of his own country, he had sought refuge in the sister kingdom. Elizabeth was a great and glorious queen, but her conduct towards Mary casts a deep shadow on her character, and leads us to reflect what poor frail creatures even the wisest of mortals are, and of what imperfect material that which we call human virtue is found to consist.

4. Translate (at sight)—

AN ESCAPE FROM BRIGANDS.

Je n'avais pas un instant à perdre : les minutes étaient d'or. Ma grosse montre marquait onze heures. J'éteignis les deux foyers de bois résineux qui éclairaient notre table. Il faisait beau. Pas plus de lune que sur la main, mais des étoiles en profusion : c'était bien la nuit qu'il me fallait. Il était une heure moins un quart. Je retournai à ma tente, je pris ma boîte qui était suspendue au-dessus de mon lit, et je l'attachai sur mes épaules. En passant par l'endroit où nous avions diné, je ramassai le quart d'un pain et un morceau de viande que l'eau n'avait pas encore mouillés. Je serrai ces provisions dans ma boîte pour mon déjeuner du lendemain. J'ôtai mes souliers, je les liai ensemble par les cordons et je les pendis aux courroies de ma boîte. Enfin, après avoir songé à tout, j'allongeai une jambe par-dessus le parapet, je pris à deux mains un arbuste qui pendait sur l'abîme, et je me mis en voyage à la garde de Dieu. C'était une rude besogne, plus rude que je ne l'avais supposé de là-haut. Deux fois je fis fausse route en inclinant sur la gauche. Il fallut revenir, à travers des difficultés incroyables. L'espérance m'abandonna souvent, mais non la volonté. Le pied me manqua ; et je tombai de quinze ou vingt pieds de haut, collant mes mains et tout mon corps au flanc de la montagne, sans trouver où me retenir. Une racine de figuier me rattrapa par la manche de mon paletot : vous en voyez ici les marques.

## ARITHMETIC.

TWO HOURS AND A HALF.

1. What is the whole number nearest to three millions which is exactly divisible by 8241 ?
  2. A year contains 365·242 mean solar days, or 366·242 sidereal days. What is the difference in mean solar minutes, etc., between a mean solar day and a sidereal day ?
  3. A merchant writes off for depreciation of his office fittings each year 10 per cent. of the value as it stands in his books from year to year. Another writes off 8 per cent. of the original value. Taking £300 as the original value, compare the book values of the fittings at the end of the fifth year.
  4. A cylindrical vessel is 2 feet long and of diameter 1 foot. How many gallons will it contain if 1 gallon = 277·27 cubic inches ?
  5. A merchant allows a discount for cash of 5 per cent. off the marked price of his goods. His expenses are 25 per cent. of the marked price, and he makes a profit of 15 per cent. on his *original* outlay. At what advance on cost is the marked price ?
  6. What is the circumference of a circular cricket ground whose area is 20 acres? Take  $\frac{1}{\pi} = .3183$ .
  7. A man is told to melt up some 22-carat gold and 15-carat gold in order to get 18-carat gold. He makes a mistake and reverses the proportions used. If he has  $3\frac{1}{2}$  ounces of this erroneously mixed alloy, how much pure gold (or pure alloy) will it be necessary to add to correct the mistake ?
  8. Standard silver consists of 87 parts of pure silver and 3 parts alloy. Silver is quoted at 2s. 4 $\frac{1}{2}$ d. per oz. standard. What is the corresponding price of pure silver ?
- 66 shillings are coined out of 1 lb. troy of standard silver. What is the market value of the metal contained in 20 shillings, which have lost 5 per cent. of their weight from abrasion ?

9. Express "1 penny a mile" as "francs per kilometre," being given  $\text{£}1 = 25.22$  francs, and  $1 \text{ metre} = 39.371$  inches.

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ALGEBRA.

TWO HOURS AND A HALF.

1. Shew that  $(2ax - by + cz)^3 + (cx + by + 2az)^3$  is divisible by  $2a + c$  and by  $x + z$ .
2. Prove that the factors of  $x^2 + px + q$  are (i.) real, (ii.) rational, according as  $p^2 - 4q$  is (i.) positive, (ii.) a perfect square.

Shew that the roots of the equation  $x^2 - bx + b^3 - a^3 = 0$  are both real and positive if  $b$  lies between  $\frac{2a}{\sqrt{3}}$  and  $a$ .

3. Solve the equations

$$(x + y)^2 + 3(x + y) + 2 = 0.$$

$$x^2 - 2xy - y^2 + \frac{7}{2} = 0.$$

4. Solve the equation

$$\sqrt{3x - 1} + \sqrt{6(x + 2)} = \sqrt{9x + 19},$$

and find by actual substitution whether the values of  $x$  you find satisfy the equation as given.

5. What is a surd? Shew that, if  $x + \sqrt{y} = a + \sqrt{b}$ , then  $x = a$  and  $y = b$ . Under what conditions is this true?

Find the value of  $\sqrt{2\frac{1}{4}} + \sqrt{2}$ .

6. Find the sum of  $n$  terms of a G.P.

Apply a similar method to find the sum of the series

$$1 + 3x + 6x^2 + 10x^3 + 15x^4 + \dots \text{ to infinity,}$$

$x$  being less than unity.

7. Solve the equations

$$x + xy + y = 3$$

$$x^2y + xy^2 = 1\frac{5}{6}.$$

8. Find the number of permutations of  $n$  things  $r$  at a time.

Four boat crews have to be made up from 16 men; when the four "strokes" have been picked it is found that the others can row in any place. How many different sets of four crews can be formed?

9. If  $\log_a N = x$ , and  $\log_{ma} N = y$ , shew that  $m^{xy} = N^{x-y}$ .  
Find the value of  $\sqrt[5]{.324}$  and of  $\sqrt{4.21} + \sqrt[3]{.622}$ .
10. Find the term involving  $x^7$  in  $(1+2x+3x^4)^{10}$ , and the term without  $x$  in  $\left(x^3 - \frac{1}{x^3}\right)^{12}$

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GEOMETRY.

TWO HOURS AND A HALF. THREE HOURS ALLOWED FOR CANDIDATES FOR THE  
P. N. RUSSELL SCHOLARSHIP.

- Triangles upon the same base and between the same parallels are equal to one another.  
Upon a base line measuring 4 units, parallelograms of area 12 units are described. Find the locus of the intersections of their respective diagonals.
- Two straight lines are parallel to two other straight lines each to each. Prove that the bisectors of the angles formed by the one pair of lines are parallel to the bisectors of the angles between the other pair.
- In any triangle the square on the side opposite to an acute angle is less than the sum of the squares on the sides containing the acute angle by twice the rectangle contained by one of these sides and the projection on it of the other.
- ABC is a triangle having the angles at B and C acute. BE and CF are respectively perpendicular to AC and BA; prove that  $BC^2 = \text{rect. AB.BF} + \text{rect. AC.CE}$ .
- Draw a tangent to a circle from an external point.  
Prove that the tangents drawn to a circle from an external point are equal.
- Prove that a parallelogram which can be described about a circle must have all its sides equal.
- In equal circles or the same circle equal angles subtend equal arcs.  
ABC, A'B'C' are two triangles inscribed in a circle and are such that AB is parallel to A'B' and AC parallel to A'C'. Prove that BC' is parallel to B'C.

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8. A point  $P$  is at distance  $d$  from the centre of a circle of radius  $r$ . Express the rectangle contained by the segments of a chord through  $P$  in terms of  $d$  and  $r$  if (i.)  $P$  is inside, (ii.)  $P$  is outside the circle.

9. Inscribe a regular pentagon in a given circle.

The straight lines which join alternate vertices of a regular pentagon intersect so as to form another regular pentagon.

*Additional for Candidates for the P. N. Russell Scholarship.*

10. The bisector of any angle of a triangle divides the opposite side in the ratio of the sides containing that angle.

On a given straight line  $BC$  describe a triangle  $ABC$ , having the angle  $BAC$  half a right angle, and the sides  $AB$ ,  $AC$  in the ratio  $1:3$ .

11. Every solid angle is contained by plane angles which are together less than four right angles.

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TRIGONOMETRY.

TWO HOURS AND A HALF.

1. Prove that the number of radians in an angle at the centre of a circle is equal to the fraction whose numerator is the measure of the arc subtended and whose denominator is the measure of the radius.

The distance between two places on the equator is 100 miles. Find their difference in longitude, assuming that the radius of the earth is 3960 miles.

2. Prove that the cosine of a given positive angle less than  $90^\circ$  is a definite positive proper fraction.

Find geometrically  $\cos 30^\circ$ , and write down the values of  $\cos 150^\circ$ ,  $\cos 210^\circ$ ,  $\cos 330^\circ$ .

3. A ladder, of length 57 feet, just reaches to the top of a window of a house when its inclination to the horizontal is  $63^\circ$ , and when the foot of the ladder is moved further away from the house the ladder just reaches to the bottom of the same window, its inclination being  $47^\circ$ .

Find the height of the window and its height above the ground.

4. Prove geometrically that

$$\sin (90^\circ + A) = \cos A,$$

taking  $A$  to be an angle between  $45^\circ$  and  $90^\circ$ .

5. Prove the following identities—

(i.)  $\tan A + \cot A = \sec A \operatorname{cosec} A.$

(ii.)  $4 \sin^3 \frac{A}{3} = 3 \sin \frac{A}{3} - \sin A.$

(iii.)  $\sin A \cos 4A + \cos A \sin 2A = \cos 2A \sin 3A.$

6. Prove, if possible by projection, the formulae for  $\sin (A+B)$  and  $\cos (A+B)$ , taking  $A$  and  $B$  both acute angles.

Find the value of  $\tan 15^\circ$ .

7. Obtain a formula suited to logarithmic calculation by means of which we can obtain the values of the angles of a triangle when the sides are given, and point out the advantage this form has over others which give the angles in terms of the sides.

8. Prove that

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} = \frac{1}{2R}.$$

9. A ship is steaming in a direction W.  $57^\circ 48'$  S. at 13 knots an hour. A lighthouse is observed to bear W.  $26^\circ 37'$  S., and 10 minutes later W.  $18^\circ 53'$  S.

How near is the ship to the lighthouse at the second observation?

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## EXAMINATION FOR THE PETER NICOL RUSSELL SCHOLARSHIP FOR MECHANICAL AND ELECTRICAL ENGINEERING.

*The papers are the same as those set in the Entrance Examination for Law,  
Medicine, Science and Engineering, with the addition of the following:—*

### APPLIED MECHANICS.

1. Investigate the equations of bending moments and shearing stresses in the following cases:—
  - (a) A beam supported at each end and loaded with an uniformly distributed load.
  - (b) A beam supported at each end and loaded with two concentrated loads arranged symmetrically.
  - (c) A beam supported at each end, with equal overhanging portions, loaded at the centre and at the extremities of the beam.
2. Explain the following terms:—Elastic limit, coefficient or modulus of elasticity, coefficient of rigidity, tensile, compressive, shearing and torsional strength, modulus of rupture, modulus of a cross-section, velocity ratio of a machine, mechanical efficiency, horse-power.
3. Explain Culman's Principle, and apply it to draw the bending moment diagram for a beam, loaded with three concentrated loads.
4. Prepare a tabulated statement, giving the tensile, compressive and shearing strengths, also the modulus of rupture of the following materials:—  
Cast iron, structural steel, and ironbark timber.
5. Find the moment of resistance of a rolled girder, having given the following dimensions:—
 

Depth	..	35 inches.
Flanges	..	5 inches by $\frac{3}{4}$ of an inch thick.
Web	..	$\frac{1}{2}$ inch thick.
Intensity of stress, 8 tons per square inch.		



Find the distributed load which the girder would carry on a span of 15 feet, when the maximum intensity of stress is 8 tons per square inch.

6. Describe and sketch any good form of double-acting lift and force pump, suitable for pumping water from a deep mine.
7. Make sketches illustrating the construction of any form of steam boiler with which you are acquainted, showing riveting, stays, and necessary fittings.
8. Contrast the function of the governor of a steam engine with that of the flywheel. Sketch any good form of governor you are acquainted with, and explain the terms, height, and sensibility.
9. Sketch one form of exact straight line motion, also Watt's parallel motion, and explain the theory of the pantagraph.

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### CHEMISTRY.

*Give equations and sketches of apparatus wherever possible.*

1. Describe two or more laboratory processes for making oxygen, also one commercial process. Give equations for the changes which take place in each case.
2. What are the common compounds containing Nitric Acid, and how do they occur in nature?  
How much Sodium Nitrate and Sulphuric Acid are required for the preparation of 1 lb. of the acid?  
 $H = 1.$   $Na = 23,$   $S = 32.$   $N = 14$  and  $O = 16.$
3. State what you know about (a) the solution of salts in water, (b) supersaturation, and (c) the formation of hydroxides.
4. What reaction takes place when potassium ferrocyanide is heated with sulphuric acid?
5. Name the following gases, and state which support combustion and which are non-supporters:—  
 $CO,$   $CO_2,$   $H_2S,$   $SO_2,$   $CH_4,$   $C_2H_2,$   $HCl,$   $HI,$   $PH_3,$   $N_2O,$   $NO,$   $N_2O_4,$  and  $NH_3.$   
How much oxygen is required for the combustion of 2 vols. of  $CH_4,$  and of 3 vols. of  $CO;$  how many vols. of the products of combustion would be formed in each case?

6. How does Silver occur in nature? What chemical reactions take place when it is extracted by the Mexican or other amalgamation process?
7. What are the chemical changes which take place when iron is extracted from its ores in the blast furnace? What are the common impurities in cast iron?
8. Why are nitrogen, phosphorus, and arsenic classed together? What is the "white arsenic" of the shops?
9. What do you understand by the density of a substance? How would you experimentally prove that the vapour density of a body is equal to half its molecular weight?
10. Describe how you would analyse a mixture containing the following substances, in order to identify the bases and acids present:—Potassium nitrate, antimony trioxide, calcium carbonate, ferrous sulphate, stannous chloride, aluminium phosphate.

State which of the above bases you could identify in the dry way only, and describe how you would do so.

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#### PHYSICS I.

1. Distinguish between fundamental and derived units of measurement. Define the fundamental units which have been adopted for the scientific measurement of physical quantities. Explain with examples what is meant by the "dimensions" of physical quantities.
2. Clearly express what you understand by the term "surface tension" as applied to liquids, and give some examples illustrating your answer. What is the value of the surface tension of water at ordinary temperatures?
3. The pressure of gases is most frequently stated as "so many inches or millimetres of mercury." What is exactly meant by such a statement, and how would you deduce from it the value of the pressure in dynes per square centimetre?
4. Explain fully the meaning of the coefficients which are used to describe the elastic properties of isotropic bodies.  
Deduce the value of the incompressibility of any gas which obeys Boyle's law.

5. Describe the methods which have been used to determine the relation between the temperature and pressure of vapours in presence of their liquid, and explain how such vapours behave differently to gases far removed from the conditions under which they liquefy.
  6. Explain the circumstances which in practice prevent the definition of the image formed by a lens being perfect.
  7. Describe the methods used by Helmholtz for the analysis and synthesis of musical sounds. What conclusion has been drawn from such experiments as to the differences in quality of musical sounds?
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## PHYSICS II.

1. Describe the gold leaf electroscope, and explain how you would use it to determine whether a body was positively or negatively electrified.
2. Find the potential at a point at a distance  $r$  from the centre of a sphere uniformly electrified, and show that the capacity of a sphere far removed from the influence of other electrified bodies is numerically equal to its radius.
3. Describe the earth's magnetic field at Sydney, defining any magnetic terms you use.
4. A bar of iron previously unmagnetised is subjected to a magnetic force which starts from zero, increases to a certain value, and then decreases to zero. Draw a curve showing the relation between the magnetic force and the magnetic intensity during the experiment.
5. Describe Oersted's discovery as to the motion of a magnetic needle near a conductor carrying a current. A piece of steel is to be magnetised by being placed in a solenoid attached to a battery; explain how you would predict, before switching on the current, which end of the steel will be the north pole.
6. State the main facts of electrolysis, describing in detail some practical application.